

## Introduction

### *Investigating Nuclear Weapons in a New Era*

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Nuclear forces continue to play a critical role in the defense of the United States, its allies, and friends. They provide a credible deterrent [against] a wide range of threats . . . [and] give the United States options . . . to achieve strategic and political objectives.

*U.S. Nuclear Posture Review, 2002*

Russia [considers] nuclear deterrence as the main element guaranteeing its security. Maintaining a minimally sufficient number of nuclear weapons to ensure nuclear deterrence remains one of the most important policy priorities.

*Vladimir Putin, 2006*

China maintains a small but effective counterattacking nuclear force in order to deter possible attacks by other countries. Any such attack will inevitably result in a retaliatory nuclear counterstrike.

*PRC Defense White Paper, 2000*

India seeks to develop a "credible minimum deterrent" nuclear capability and adheres to a no first use policy . . . Nuclear retaliation to a first strike will be massive and designed to inflict unacceptable damage.

*Indian Cabinet Committee on Security, 2003*

We were compelled to show then, in May 1998, that we were not bluffing, and in May 2002 we were compelled to show that we do not bluff.

*Pervez Musharraf, 2002*

Israel won't say . . . whether we have nuclear weapons. It suffices that one fears that we have them and that fear in itself constitutes an element of dissuasion.

*Shimon Peres, 2006*

North Korea has built nuclear weapons to cope with the U.S. nuclear threat and is prepared to counter any U.S. pre-emptive strike.

*Minju Joson, March 2006*

To cope with the threat of nuclear weapons, Japan continues to rely on the nuclear deterrent provided by the United States . . . [It] will . . . introduce ballistic missile defense systems to cope effectively with ballistic missile attacks.

*National Defense Program Guidelines, 2005*

Leaders and governments in nuclear weapon states, their allies, and aspirants to the nuclear club believe that their nuclear forces or those of their allies can advance national security by providing a capability to counter specific threats; to achieve certain policy priorities; to demonstrate national power; to preserve freedom of action; or as insurance against uncertainty and risks in a changing international environment. Nuclear weapons, ballistic missiles, and strategic defense have entered or reentered the security thinking of the old, new, and prospective nuclear weapon states and their allies in a fundamentally different strategic environment and in a nuclear era that is substantially different from that of the Cold War. This study investigates the purposes and roles of nuclear weapons in the new security environment, the nature and content of the national nuclear strategies of relevant states, and their implications for international security and stability in the new era with the focus on the Asian security region. The latter is now a core world region and could become the geopolitical center of the world in the twenty-first century.

### Persistence of Nuclear Weapons

Nuclear weapons played a central role in defining the strategic relations between the two superpowers—the United States and the former Soviet Union—and their key allies during the Cold War. At times, considerations relating to the strategic balance even eclipsed the underlying political struggle. Nuclear weapons and ballistic missiles dramatically elevated the importance of the strategy of deterrence (dissuasion by threat of enormous destruction known in the nuclear jargon as deterrence by threat of punishment) and downgraded strategies of defense (known as deterrence by denial) and offense.<sup>1</sup> From an “occasional stratagem” deterrence became an elaborate and comprehensive strategy that shaped all aspects of the national security policies of the two superpowers and a cornerstone of international politics (Morgan 2003: 3–4). After the 1962 Cuban missile crisis, avoiding war between the United States and the former Soviet Union became a central strategic goal of the two adversaries. Most political, strategic, and technological developments were evaluated in terms of their consequence for the stability of deterrence between the two superpowers, often associated with a set of strategic circumstances referred to as “mutual assured destruction” (MAD). Beginning in the 1970s, arms control agreements were designed to preserve strategic stability through mutual deterrence, and to prevent war. Nuclear weapons were credited for the “long peace” among the major powers during the Cold War (Gaddis 1987; Jervis 1989: 23–24; Morgan 2003: 27–28).<sup>2</sup>

Termination of the Cold War, which coincided with the dawn of the information age, raised doubts about the relevance and role of nuclear weapons in the new era. For reasons discussed below, initially there was a marked lack of interest in nuclear weapons in the so-called first and second worlds. The heyday of nuclear

weapons was deemed over; nuclear weapons were expected to play only a limited security role in the new era. This was reflected in the U.S. Department of Defense 1994 Nuclear Posture Review (NPR), which stated “nuclear weapons are playing a smaller role in U.S. security than at any other time in the nuclear age.” A concerted effort was made in the 1990s to freeze the nuclear order and move toward a comprehensive ban on testing in the hope of ridding the earth of nuclear weapons. In Asia, however, interest in nuclear weapons was undiminished by the termination of the Cold War. In fact the U.S.-dominated new international order combined with developments in the Asian security region and the international attempt to freeze the nuclear order, increased the incentives for certain countries to openly declare their nuclear weapon status and for others to accelerate acquisition and modernization of their nuclear arsenals. These developments, together with concerns over new security challenges and strategic uncertainty, contributed to renewed interest in nuclear weapons in the West as well. The net result has been increased attention to nuclear and missile forces in national security strategies.

### *Initial Disinterest in the West*

Termination of the Cold War and the collapse of the Soviet Union quickly ended the centrality of nuclear weapons in national and international security in the first and second worlds. For about a decade there was a marked lack of interest in the security role of nuclear weapons. The lack of interest may be traced most fundamentally to the disappearance of the security rationale brought about by two interrelated transformations: change in the structure of the international system from bipolarity to unipolarity and the development of cordial relations between the Western powers and Russia. Demonstrating that arms, including nuclear weapons, are in large measure symptomatic and a consequence of political conflict, the two transformations quickly eliminated the centrality of nuclear weapons in relations among these countries. This, however, did not lead to the abandonment of nuclear weapons. Both inertia and concern over uncertainty caused the United States, Russia, France, and Britain to retain sizable nuclear arsenals.

A second reason for neglect of the security role of nuclear weapons was the changed international security situation and the focus on “new” threats like terrorism, rogue states, ethnic and religious conflicts, and pandemics (avian flu, HIV/AIDS, etc.). Such concerns redirected scholarly and policy community attention to “nontraditional” security threats arising from intrastate conflicts, “failed states,” transnational terrorist networks and organizations, and rogue states. In this context, work on nuclear weapons and traditional interstate security seemed irrelevant and unfashionable. Concern with nuclear proliferation and nuclear terrorism, however, was an exception. Although proliferation was always a concern, the difference was that during the Cold War it ranked below the nuclear threat the

two superpowers posed to each other. In the post-Cold War era, nuclear proliferation moved up the security agenda to become the primary concern for the United States and the Western international community. Nuclear proliferation became an even more acute concern in the post-9/11 era. President George W. Bush identified “the gravest danger” confronting the United States as lying “at the crossroads of radicalism and technology.”<sup>3</sup> The states of concern for him were Iraq, North Korea, and Iran, which he collectively termed the “axis of evil.”<sup>4</sup> Religious terrorist groups also became a concern. Though the probability is low that religious terrorist groups will be able to acquire nuclear weapon capabilities, their interest in doing so and the belief that traditional deterrence will not work against those groups underscore the concern with nuclear terrorism.

A third reason for the disinterest in the security roles of nuclear weapons was rooted in a reading of the Cold War as a highly dangerous era in which peace rested on a “delicate balance of terror” and threat of mutual annihilation that should never be repeated. In this view, nuclear weapons were dangerous and immoral and should be delegitimized and denaturalized. The proper focus should be on “cooperative nuclear threat reduction” that includes securing weapons and fissile material, especially in Russia and the former Soviet republics, preventing nuclear proliferation, and moving toward comprehensive disarmament. The world would be safer without nuclear weapons. Nonproliferation became the dominant lens for viewing nuclear weapons and security. It came to be seen as an end in itself rather than one of several approaches to a safer world. Downplaying or disregarding the changing strategic environment and national security imperatives, all proliferation was condemned.<sup>5</sup> A strong effort was made to indefinitely extend the Non-Proliferation Treaty (NPT).

Fourth, the antinuclear vision was reinforced by uncertainty over the role of nuclear weapons in the information age. Warfare was believed to be on the cusp of a new revolution in which the acquisition or denial of information was the key to victory (Gray 2001). The anticipation was that emphasis on surveillance and information (a presumed consequence of the revolution in military affairs [RMA]) combined with new, more accurate, long-range, and lethal conventional weapons would bring about a revolution in the conduct of warfare that would reduce the significance of nuclear weapons. This belief was due in part to the uncertainty over the role of nuclear weapons in a profoundly altered world. Conventional military capability was seen as the more relevant and useable instrument of policy in the new security environment.

A final reason for the lack of interest in the security role of nuclear weapons after the Cold War ended was the unwillingness to recognize the security rationales of the new and aspiring entrants to the club and the consequent labeling of these countries as “illegitimate” nuclear weapon states or “rogue” states with irrational leaders who cannot be deterred.<sup>6</sup> Contesting, downplaying, or disregarding the

security imperatives of the new entrants and aspirants, Western scholarship in the “proliferation pessimism” mode emphasized the prestige that poor countries were apparently seeking through the acquisition of nuclear capability and the negative security, safety, and proliferation consequences that would flow from the spread of nuclear weapons to these states. Nonproliferation advocates, for example, argued the incompatibility of the third world states’ logic and behavior patterns with Western rational deterrence concepts and stressed the possible negative safety consequences arising from the technological and organizational deficiencies of new nuclear forces (Sagan 1994). Though not unimportant, undue focus on the spread of nuclear material and weapons to “rogue” states and nonstate actors has hindered serious investigation of larger geopolitical issues; it has reduced attention to the salience and role of nuclear weapons in national security policies and strategies and their implications for regional and global interstate security and stability.

#### *Continued Interest in Asia*

Instead of diminishing interest in nuclear weapons, termination of the Cold War and regional developments stimulated interest in the acquisition of nuclear weapons and modernization of existing nuclear arsenals in Asia. The emergence of the United States as the sole superpower and its unilateral effort to construct a world order based on its unmatched military capability created apprehensions in several Asian countries, including China and especially in those countries that Washington labeled as “rogue” states. These concerns became a key driver of nuclear modernization in China and the quest for nuclear weapons by North Korea and Iran. Developments in Asia, such as the rise of China and India, intensified the security apprehensions of India and Pakistan, respectively, strengthening the case for nuclear weapons.

India’s interest in nuclear weapons was grounded in security considerations relating to China and Pakistan and its vision of itself as a major power. These considerations were unaltered by the termination of the Cold War. In fact a rising China increased anxieties in India. Further, the proposed indefinite extension of the NPT and movement toward concluding a Comprehensive Test Ban Treaty (CTBT) increased the incentive for India to overtly declare its status as a nuclear weapon state. Likewise, Pakistan’s perception of an existential threat from India remained unaltered. A rising India and improvement in U.S.-India relations were seen as further tilting the balance of power against Pakistan. Consequently Pakistan followed India in testing and declaring itself a nuclear weapon state. Similarly the termination of the Cold War did not affect Israel’s rationale for its nuclear force, which is grounded in its view of history and the existential threat it perceives in the Middle East. The belief that Iran is seeking a nuclear weapon capability provides a new and in some ways regionally more palatable rationale for Israel’s nuclear force.

Unilateralism on the part of the United States; demonstration of its might in the First Gulf War, Kosovo, Afghanistan, and the invasion of Iraq; and its emphasis on developing strategic defense (ballistic missile defense [BMD] and counterforce capabilities) to make the use of force a more effective instrument of U.S. foreign policy created apprehensions even in major powers like China and Russia, contributing to modernization of their nuclear arsenals. U.S. military action in Afghanistan and Iraq to oust hostile and “despicable” regimes created fear and concern in North Korea and Iran that were identified by President Bush as possible military targets for regime change and destruction of their nuclear facilities. Along with other considerations, fear of the United States has been a key factor accelerating the nuclear weapon programs of North Korea and Iran. North Korea views its missile and nuclear weapon programs as key elements in developing a self-reliant capability to deter the United States.

The rise of China, its nuclear modernization program, and the North Korean missile and nuclear programs also raised security concerns in Japan, contributing to further strengthening of the U.S.-Japan security alliance and reiteration of the U.S. extended deterrence commitment to Japan. A rising China reinforced Indian apprehensions and raised concerns in Washington as well about Chinese military power, including nuclear modernization. Concern with China is an important factor in the budding strategic relations among the United States, India, and Japan. The North Korean nuclear and missile programs raised security concerns in Northeast Asia, particularly in Japan and to a lesser degree in South Korea. In addition to seeking a more substantive demonstration of U.S. extended deterrence commitment, Tokyo became more committed to the development of BMD to protect Japan from North Korean missile threats. Likewise, Iran’s nuclear weapon quest created apprehensions in Israel and certain Arab states. The basic point is that the interest in nuclear weapons in Asia and the Middle East was not diminished by the termination of the Cold War. The new strategic environment, with a dominating United States and a rapidly rising China, provided additional or new impetus for the acquisition and development of nuclear weapon capability.

#### *Renewed Interest in Recognized Nuclear Weapon States*

Beginning sometime around the turn of the twenty-first century, the five recognized nuclear weapon states began to rethink the purpose, roles, and strategies for the employment of nuclear weapons in a new strategic era. That rethinking was linked to several developments but three were particularly important. First, after a decade of post-Cold War experiences the outlines of the new strategic environment were becoming more visible. Countries were in a better position to assess “new” security challenges and their strengths and weaknesses in coping with them. It was evident that despite and, in some ways, because of the

fundamental change in the security environment, nuclear weapons continued to be relevant although there was still uncertainty about specific roles and suitable nuclear postures. The United States, Russia, Britain, and France began to review and redesign their national nuclear postures for the new era. The second development was the perceived unraveling of the Cold War nuclear order with the Indian and Pakistani nuclear tests in 1998, the nonratification of the CTBT by the Bush administration, Iraq’s expulsion of the United Nations Special Commission (UNSCOM) inspectors in 1999, the gradual erosion of the 1994 Agreed Framework with North Korea, and revelations of the A. Q. Khan proliferation network. The de facto expansion of the nuclear club, prospect of further increase in the number of nuclear weapon states, and the heightened prospect that nonstate actors may acquire weapons of mass destruction (WMD) capability stimulated interest in how to cope with the new nuclear situation and threats. The third development was the Bush administration’s geopolitics-oriented worldview, its attempt to unilaterally construct a world order based on U.S. predominance and values, and its heavy handed prosecution of the global war on tyrants and terrorists in the wake of 9/11. Set out boldly in several reports and speeches, these policies and especially their manifestation in the various military actions became a key driving force in the review of the U.S. nuclear posture as well as that of other countries.

Of particular relevance to this study is the 2002 NPR, which is the first sweeping reappraisal of U.S. nuclear posture since the termination of the Cold War. Mandated by Congress, the 2002 NPR maintains that nuclear weapons play an important role in the defense of the United States and that they provide credible military options to deter a wide range of threats, including WMD and large-scale conventional military attacks. The new capability-based posture, it posits, should be capable of dealing with immediate contingencies (e.g., an Iraqi attack on Israel or its neighbors, a North Korean attack on South Korea, or a military confrontation over the status of Taiwan) as well as potential and unexpected contingencies. It identifies North Korea, Iraq, Syria, and Libya as countries that could be involved in all three types of contingencies. North Korea and Iraq are identified as chronic military concerns. China is identified as a country that could be involved in an immediate or potential contingency. Although the United States seeks a cooperative relationship with Russia, the NPR states that that country maintains the most formidable nuclear forces aside from the United States, and because it confronts many instabilities Russia remains a country of concern. The NPR downgrades deterrence by punishment and high profiles strategies of offense (preemption and prevention) and strategic defense (preemption, ballistic missile defense, counterforce, and passive defense). It seeks to build a new strategic triad with a mix of nuclear and nonnuclear capabilities to make military force a more useable instrument of policy. The goal is to develop a credible multipurpose

force with a broad array of capabilities, including a significant nuclear component, to provide a spectrum of options in the pursuit of deterrence, assurance, offense, and defense. Although the programs envisioned in the NPR have not mustered the necessary political and funding support in the United States, and its future in the post-George W. Bush presidency remains uncertain, it remains official policy. The contents of the NPR combined with the statements and actions of the Bush administration, including the military action in Iraq, created apprehensions in several countries, forcing them to rethink their own policies and postures.

Russia's reappraisal of its nuclear policy is a function of several developments: the dramatic decline in its conventional military capability and more generally its descent from the position of great power; its perception that the unipolar structure, the growing power and influence of the United States, its unilateral approach to international governance, and the eastward expansion of the North Atlantic Treaty Organization (NATO) are marginalizing Russia and threatening its interests in Europe, the Middle East, Central Asia, and the Pacific region; and the belief that America's development of counterforce capability and BMD will negatively affect its strategic deterrent (Fedorov 2006; Sokov 2004). The reappraisal is also linked to the rise of China. Although Russia cooperates with China on several international issues and supplies advanced military technology to that country, a rapidly rising China is viewed in certain quarters as a long-term security concern. After much debate in the 1990s, Russia articulated a military doctrine in 2000 that emphasized nuclear deterrence as the major element that will guarantee its international security and underscore its status as a powerful nation. Russia's strategic posture appears to be shifting from its Cold War orientation to national defense, although the specific threats that Russian nuclear forces are supposed to deter remain unclear.

Though they are not in the Asian security region, it is pertinent to observe that Britain and France also reviewed and reiterated their commitment to retain their nuclear forces in the first decade of the twenty-first century. The British government tabled a white paper in Parliament in December 2006 arguing that it sees "an enduring role for the UK's nuclear forces as an essential part of our capability for deterring blackmail and acts of aggression against our vital interests by nuclear-armed opponents" (Secretary of State for Defense and the Secretary of State for Foreign and Commonwealth Affairs 2006). It proposes building a new class of submarines, participating in the U.S. life extension program for the Trident D5 missile, and developing a replacement warhead, all with a view to maintaining an effective submarine and ballistic missile-based deterrent system. In March 2007 the British House of Commons supported the plan to renew Britain's nuclear submarine system. French nuclear doctrine and capability have also evolved substantially. President Jacques Chirac indicated the changes in January 2006 when he announced a "new" nuclear deterrence doctrine (Chirac 2006). In addition

to deterring threats from major powers, the doctrine posits that state sponsors of terrorism risk nuclear retaliation, that regional powers armed with WMD and threatening European territory would face "absolutely unacceptable damage," and that France has the right to "employ final warning to signify our determination to protect our vital interest" (Yost 2006). France has acquired or is seeking to acquire new air and sea capabilities for more discriminatory and controllable options in employing its nuclear weapons.

Although less explicit and less transparent, China has emphasized modernization and further development of a survivable nuclear deterrent capability as an integral part of its defense modernization program (State Council Information Office 2000). A primary purpose of nuclear modernization is to make China's deterrent capability more effective in the context of "new" security challenges, including a shift in U.S. nuclear posture, U.S. development of a BMD system, and the entry of new nuclear powers in Asia. Deterring possible U.S. military intervention in the event of a conflict across the Taiwan Strait is a major purpose of Chinese military modernization; the role of nuclear weapons in this conflict, however, seems more implied than explicit. Chinese scholars and officials are beginning to engage in more explicit discussion of nuclear doctrine, force posture, and operational planning. Arguing the case for using nuclear weapons in limited conflicts for escalation control and damage limitation, some Chinese officials and scholars advocate abandoning the policy of no first use (NFU) or at least making it conditional.<sup>7</sup> The *2006 China Military Power* report published by the U.S. Department of Defense suggests that the pace and scope of the modernization of China's strategic nuclear forces has exceeded expectations and has the potential to alter the regional military balance. China's success in destroying a defunct weather satellite in space with an antisatellite missile has raised concerns in the United States about the security of its space-based surveillance systems, with certain analysts arguing that it could stimulate military competition in space (e.g., Johnson-Freese 2007). Ashley Tellis (2007) asserts that China has surpassed the Soviet Union in its heyday by demonstrating a "unitary hit-to-kill payload" capability and that the Chinese purpose is not to compete in space-based weapons or compel the United States to negotiate space arms limitation agreements but to blunt the massive U.S. conventional superiority by threatening its "eyes and ears" in space. In his view Beijing's investment in space denial technologies is driven by strategic concerns, with China preparing for a prospective geopolitical rivalry with the United States.

#### *"New" Nuclear Weapon States*

Concurrent with the reorientation of national postures and the modernization of the arsenals of the five recognized nuclear weapon states, two (India and Pakistan) of the three undeclared nuclear weapon states that had remained outside

the NPT became declared nuclear weapon states after May 1998. International efforts to freeze and roll back their nuclear weapon programs have not been successful. The international community appears to have accepted them as nuclear weapon states. Both countries view nuclear weapons as essential for national security and strategic autonomy, and they are in the process of developing doctrines and capabilities for an operational deterrent force. A series of crises between 1999 and 2002 compelled the two countries to recognize the possible roles and limitations of nuclear weapons in their security interaction. New Delhi also seeks to develop a deterrent capability against China. Israel is now the only undeclared nuclear weapon state, but it is believed to possess a substantial nuclear force that is comparable in numbers (though not in delivery vehicles or range) to China, Britain, or France. The Israeli government continues to be committed to an opaque status and existential deterrence, but a nuclear Iran may compel a reappraisal of the opaque nature of its nuclear arsenal and the nature of its deterrence strategy. Despite the assertion that it only seeks nuclear energy, the Iranian government's ultimate goal is widely believed to be the acquisition of nuclear weapons, or at least the development of the necessary infrastructure to realize such a capability on short notice (Chubin 2006).

North Korea is possibly the latest entrant to the nuclear club. The government in Pyongyang declared North Korea a nuclear weapon state after a partially successful low-yield atomic test on October 9, 2006. Producing widespread international condemnation, the test has been depicted as a threat to the national security of the United States and Japan, as increasing the prospects for the spread of nuclear weapons and material to additional states and nonstate actors, and generally as a threat to international peace and security with far-reaching strategic consequences for Northeast Asia. Pyongyang, however, sees the test, and more broadly its nuclear and missile programs, as a vital element in developing a self-reliant deterrent capability focused in the short to medium term against a perceived U.S. threat, including preemptive action.<sup>8</sup> In the long term, the capability may be seen as insurance to reduce North Korea's vulnerability and increase its options toward China, Japan, and Russia.

North Korea's nuclear test has reinforced apprehensions among U.S. allies in Northeast Asia, particularly in Japan. Although Japan has since reaffirmed its nonnuclear stance, certain political leaders and influential opinion makers have called for an open debate on Japan's nuclear future. Tokyo also sought reaffirmation of Washington's extended nuclear deterrence commitment. And support for Japanese participation in the American BMD effort has solidified. Though less concerned about North Korea's nuclear program, South Korea too sought reaffirmation of Washington's extended nuclear deterrence commitment in the wake of the test.

### *Nuclear Energy Renaissance*

A final reason for increased international concern with nuclear weapons is linked to the worldwide renewed interest in nuclear energy and the potential for diversion of weapon-grade plutonium to undesirable state and nonstate actors. Rising fossil fuel cost, energy security concerns, favorable changes in nuclear technology and nuclear energy economics, and concern over the environment have all contributed to a nuclear energy renaissance (Holton 2005). The United States, Britain, France, Japan, Australia, China, and India along with many other countries envision nuclear energy as a central component of their energy policy. The International Atomic Energy Agency estimates that sixty new nuclear power plants will be built in the next fifteen years. Meeting the growing global demand for energy requires investment, trade, and nuclear energy-related technology transfer to ensure reliable supplies of reactor fuel to bona fide users. At the same time the international community is concerned about nuclear proliferation and seeks to put in place adequate international safeguards to lower the risk of diversion of proliferation-sensitive parts for noneconomic purposes (ElBaradei 2006).

### *Continued Security Relevance*

The preceding overview and the epigraphs to this introduction suggest that nuclear weapons will persist and influence national security policies and strategies of major powers, certain second-tier powers, as well as isolated states in the foreseeable future, with consequences for national and international security. Initial anticipation in the West especially in the arms control and nonproliferation community of the decreasing security relevance of nuclear weapons was ill-founded. The effort in the last decade and a half to arrest and reverse the spread of nuclear weapons has not been any more successful than earlier ones. The United States and Russia have each undertaken to drastically cut back their nuclear arsenals, but at the end of the day they still would have large nuclear forces. And each is trying to develop new capabilities that would increase the effectiveness of their respective arsenals in new missions and blunt those of others. Other nuclear weapon states are building and modernizing their nuclear arsenals to retain or increase their robustness with a view to increasing their military options. The number of declared nuclear weapon states has increased and may further increase although only gradually. Nuclear weapons will continue to be relevant in the foreseeable future. It is imperative to investigate their security roles and implications. This is especially important in light of the dramatically altered security environment and a new nuclear age.

### Unipolar System with Multiple Security Dynamics

Termination of the Cold War, collapse of the Soviet Union, and its succession by a weak Russia fundamentally altered the structure and dynamics of the

international political system. Unipolarity replaced bipolarity. Early hopes and predictions that unipolarity would be short lived and the system would soon become multipolar have not been realized.<sup>9</sup> It is now commonly accepted that unipolarity will continue for another decade or two, possibly longer. At the same time it is widely anticipated that rising Asian powers, especially a fast rising China, and a united and expanding Europe will increasingly constrain U.S. dominance not only in Asia and Europe but also globally. In a few decades from now the international system could become multipolar, with the United States still remaining first among equals. The anticipated transition is contingent on the continued growth and modernization of Asian powers and the unity and ability of the European Union to act in a concerted manner in the political and security arenas.

Unlike the Soviet-American ideological and military confrontation that undergirded and shaped international politics and security in almost every region of the world during the Cold War, the post-1990 unipolar system does not have a single integrating security dynamic. Instead it is characterized by multiple dynamics flowing from the attempt of the United States to unilaterally construct a new world order based on its dominance and values (democracy, human rights, market economy); the interaction of the predominant United States with rising powers (principally in Asia with a focus on China); the U.S.-led global war on terrorism (GWT) that is enmeshed in local and domestic conflicts over political system, legitimacy, and national identity; unresolved regional conflicts in Asia (Taiwan, Korea, and Kashmir); concern over the spread of nuclear weapons, especially to so-called rogue states and terrorist groups; increasing economic interdependence and integration at the regional level; and economic globalization. Although there are some unresolved regional disputes and long-range apprehensions, there is no deep cleavage or confrontation among the major powers that overrides other considerations. The contemporary political, security, and economic dynamics are not necessarily congruent. Competing political, traditional security, and economic priorities and dynamics imply that states have to continuously balance short- and long-term interests within and across sectors.

The United States, Russia, and the Asian powers are all subject to multiple and competing dynamics, including interdependence, cooperation, conflict, and confrontation. Threat perceptions vary widely, with certain countries being viewed simultaneously as friend, partner, and potential security threat. Several states confront multiple threats of unequal urgency; threats are often long range and seldom articulated explicitly; only in a few cases is the threat perception clear and urgent (between North Korea and the United States, Taiwan and China, and Pakistan and India). The numerous explicit and "quiet" rivalries (China-United States, China-Russia, Russia-United States, India-China, Pakistan-India, North Korea-United States, Japan-North Korea, Japan-China, Taiwan-China, and South Korea-North Korea) make for a complex security environment with crosscutting lines

of amity and enmity. This is compounded by widespread regional anticipation of change in the distribution of power and uncertainty over the "ultimate" configuration of power in the Asian security system. The numerous rivalries, anticipation of strategic change, and uncertainty contribute to the perception of a region in strategic flux and provides stimulus for military modernization to deal with unexpected developments.

Security during the Cold War was global. Regional security then was entwined with and subsumed by the global Soviet-American confrontation. Today security is largely regional. Although the United States is the sole global power, it has not been able to define the international security environment in terms of threats or architecture for managing security. Despite its efforts, the GWT and democratic development have not become primary drivers of international politics and security. Further, there is no political and security counterpart to economic globalization. Political and security dynamics have become largely regional. The United States is a key player in many regions but all other significant actors are largely regional players. The European Union is significant in adjacent areas but its security role in Asia or Latin America, for example, is limited. Likewise although the reach of Asian countries is expanding, their security role is effectively limited to Asia and adjoining regions. In geography as well as in substance, the contemporary international security environment is dramatically different from that of the Cold War.

### A New Nuclear Age

Likewise, the contemporary nuclear environment, which has been referred to as the second or new nuclear age, is substantively different from that during the Cold War. At first glance the nuclear situation in contemporary Asia might appear rudimentary. A closer look, however, suggests a more complex nuclear environment that differs from that of the Cold War era in significant ways. Six major differences are discernible: asymmetry as the dominant condition, increasing salience of defense against nuclear weapons, blurring of the nuclear-conventional distinction, spread of nuclear weapons to more states, concern that nonstate actors will acquire nuclear weapons, and renewed interest in nuclear energy.

#### *Asymmetry*

A key difference is the condition of asymmetry created by the huge disparity in military capabilities, including those in the nuclear arena. Asymmetry did characterize the context for nuclear thinking in the early period of the Cold War when the United States enjoyed a nuclear monopoly into the mid-1950s and nuclear superiority well into the 1960s. Asymmetry also characterized nuclear thinking in Britain, France, and China (Goldstein 2000). It informed the U.S. effort to cope

with Soviet conventional superiority in Europe, and it is possible (though not clear) that the Soviet Union was also seized with asymmetry in the early phase of the Cold War. Nevertheless, parity and mutual vulnerability between the two superpowers were the defining parameters in thinking about nuclear strategy from the mid-1960s onward.

In contrast, asymmetry is now the defining condition and the basis for strategic thinking and planning in nearly all nuclear weapon states. Asymmetry is manifest in the wide spectrum and many gradations in nuclear and missile capabilities that range from covert programs to develop nuclear weapons (North Korea and Iran), substantial but opaque nuclear capability (Israel), through minimum deterrence postures (India and Pakistan), a limited strategic triad (China), a shrinking conventional capability but still extensive range of nuclear capabilities (Russia), to a wide array of conventional and nuclear weapon capabilities possessed by the United States which it is trying to further expand. (For details about the nuclear weapon capabilities of states in the Asian security region, see Table I-1.)

Because of the overall power and technological differentials, nuclear and conventional asymmetry appears unlikely to be bridged in the foreseeable future. Asian nuclear forces would be much smaller than Russian and American forces. China is likely to make important advancements in its nuclear and missile arsenals but is unlikely to catch up with Russia or the United States, and Russian forces will continue to be more limited than those of the United States. Despite a substantial reduction in the number of warheads and the budgetary constraints on the development of new systems, the United States is likely to enjoy nuclear superiority for at least a few more decades. Asymmetry has important implications for the basis for deterrence, the construction of survivable nuclear forces, incentives for development of first strike capabilities, and crisis stability and instability.

*Ballistic Missile Defense*

The development and deployment of BMD constitutes the second and possibly the fundamental technological difference between today and the Cold War. Bernard Brodie (1946, 1959) emphasized that the significance of nuclear weapons "depends above all on the possibilities of defense against them in strategic attack." He stressed that all "conclusions about strategies and national policies must be largely governed by our estimate of probabilities for the future of defense" (1959: 173). Although there was always interest, effective defense against nuclear weapons was deemed not possible. Even if it had been possible, strategic defense was considered undesirable because it would threaten the strategic stability embodied in MAD. Mutual vulnerability and deterrence based on assured retaliation dominated security thinking during the Cold War, especially in the United States. The 1972 Anti-Ballistic Missile (ABM) Treaty that brought the first debate on ballistic missile defense (1965-72) to a conclusion embodied this understanding and was

TABLE I-1  
Nuclear Forces of Countries in the Asian Security Region

Weapons	United States		Russia		China		Israel		India		Pakistan		North Korea		Britain		France						
	Stockpile Deliverable	Number	Stockpile Deliverable	Number	Stockpile Deliverable	Number	Stockpile Deliverable	Number	Stockpile Deliverable	Number	Stockpile Deliverable	Number	Stockpile Deliverable	Number	Stockpile Deliverable	Number	Stockpile Deliverable	Number					
ICBM	MMII:	0	SS-18:	75	DF-5A:	20																	
	MMIII:	488	SS-19:	123	DF-31A:	6'																	
	MX PK:	0	SS-24:	0																			
SRBM, IRBM, MRBM	Number	488	SS-25:	201																			
	Warheads	764	SS-27:	48																			
	Type		SS-27M:	6																			
SLBM	Number	288																					
	Warheads	1,728																					
	Type																						
SSBN	Ohio:	14	Xia (Type 092):	(1) <sup>d</sup>																			
			jin (Type 094):	(2) <sup>d</sup>																			

(continues)



TABLE I-1 (continued)  
Nuclear Forces of Countries in the Asian Security Region

	United States	Russia	China	Israel	India	Pakistan	North Korea	Britain	France
Number	114	78	~100						
Strategic Bombers	1,083	872	Bombs DHL-10 LACM H-6: ~20 ~15 <sup>c</sup> ~100/30 <sup>c</sup>						
Type	B-2: B-1B: B-52:	Tu-95H6: Tu-95HH16: Tu-160:							
Number			?						
Theater Weapons									
Warheads	500	2,330	Bombs	~30	Bombs Jaguar M 2000H	~25	?		ASMP 60
Type	B61-3/4 bombs: Tomahawk SLCM:	400 ABM: SA-10 SAM: Aircraft: Naval:	H-5: Q-5 / others?	F-15I? F-16		Babur LACM: F-16	Fighter- bombers?		M 2000N: S Etendard: 10

SOURCE: Federation of American Scientists/Natural Resources Defense Council, [www.fas.org/nuke/guide/summary.htm](http://www.fas.org/nuke/guide/summary.htm). Maintained by Hans M. Kristensen. Data current as of March 2008.

NOTES:

ABM: Anti-Ballistic Missile; DF: Dong Feng; ICBM: Intercontinental Ballistic Missile; IRBM: Intermediate-Range Ballistic Missile; JL: Julang; LACM: Land-Attack Cruise Missile; MRBM: Medium-Range Ballistic Missile; SLBM: Sea-Launched Ballistic Missile; SLCM: Short-Range Ballistic Missile; SRBM: Short-Range Ballistic Missile; SSBN: Nuclear-Powered Ballistic Missile Submarine; TT: Taepo Dong.

<sup>a</sup>The B-1B bomber was officially removed from the SIOP in 1997, but retained in a Nuclear Retool Plan until March 2003, when the Office of the Secretary of Defense directed the Air Force to discontinue the plan. The B-1B is no longer nuclear capable.

<sup>b</sup>The first Borey-class SSBN was launched in 2006 and might be entering operation in 2008 with the Bulava SLBM. A total of six Borey SSBNs are planned. Delta IVs are being upgraded to the modified SS-N-33 (Sineva). All but three of the original six Typhoon-class SSBNs have been retired. One has been converted to a test launch platform for the SS-N-30 (Bulava) SLCM. The Borey will probably replace Delta IVs on a one-for-one basis.

<sup>c</sup>The Pentagon declared in May 2007 that the DF-31 had achieved "initial threat capability" in 2006.

<sup>d</sup>The first Jin-class SSBN was launched in 2004 and might be entering operation in 2008 with the Bulava SLBM. A total of six Borey SSBNs are planned. Delta IVs are being upgraded to the modified SS-N-33 (Sineva). All but three of the original six Typhoon-class SSBNs have been retired. One has been converted to a test launch platform for the SS-N-30 (Bulava) SLCM. The Borey will probably replace Delta IVs on a one-for-one basis.

<sup>e</sup>The U.S. naval intelligence has projected that China might build five SSBNs if it wants to have a more permanent sea-based deterrent, and the Department of Defense (DOD) report in March 2008 projected that Chinese forces by 2010 might include "up to five" Jin-class SSBNs.

<sup>f</sup>The DOD reported in 2008 that 50-250 DH-10 have been deployed in air- and ground-based versions. Only a portion of the H-6 force, perhaps 30 aircraft, are estimated to have secondary nuclear mission. The H-6 is being modified to carry the DH-10. The Q-5 may no longer be nuclear capable. There is no reliable information that newer tactical aircraft have been assigned a nuclear role.

justified primarily in terms of strengthening deterrence by protecting second-strike capability (Freedman 2004: 19).

A radical departure in thinking came in 1983. Seeking to escape from deterrence based on the threat of nuclear retaliation and mutual annihilation, President Ronald Reagan tasked the scientific community to explore the feasibility of strategic defense against nuclear ballistic missiles (Payne 1985). The idea elicited deep skepticism and was even ridiculed, and it failed to achieve much progress owing to technological limitations and the waning of the Cold War, but the Strategic Defense Initiative (SDI) did establish a national research program. Strategic defense gained new prominence during the George W. Bush administration, which scrapped the distinction between strategic and theater missile defense and made the development of missile defense a high priority. The U.S. commitment to develop and deploy a layered system to defend itself, its allies, and its friends against ballistic missile threats from "rogue" states, and the attraction of such systems to America's allies, such as Japan and Taiwan, complicate the strategic picture and calculations of Russia and China, which for the moment oppose such systems (Berry 2005; Ferguson 2000; Glaser and Fetter 2001; International Institute for Strategic Studies [IISS] 2004).

Thus far, missile defense development has been limited in scope, and the small number of tests under favorable conditions has had only partial success. According to Philip Coyle, the U.S. missile defense program is still struggling to deal with threats from decoys and countermeasures (Coyle 2002, 2006). Even if U.S. interceptors become more effective against threats posed by states like North Korea and Iran in the next several years (it should be noted here that for the present both these countries do not have long-range missiles that can reach the United States), the United States is still quite far from the development of effective defense against more substantial nuclear threats from countries such as Russia and China that do have nuclear-tipped missiles that can reach the United States and which can deploy decoys and countermeasures. Despite the substantial research and development investments by the United States, Japan, Taiwan, and Europe on tactical missile defense, the technology for such a system is also not proven. Further, such systems can be relatively easily countered by the development of more missiles (Coyle 2006).

However, if strategic defense against substantial threats becomes more effective, it could alter the balance between deterrence and offense, with far-reaching strategic consequences for the relationship between force and statecraft, for stability, and for the salience of small nuclear forces. With effective strategic defense, the assumption of mutual vulnerability that was at the heart of strategic thinking during the Cold War would become suspect. States with effective shields will have the option to exit from the MAD situation. The sword may become more potent and usable. The counterforce role may gain new prominence. For those

without a missile defense system, force protection and effectiveness in penetrating the adversary's BMD system would assume high priority. Striking first could become attractive. Much more effort would be required to establish mutual vulnerability and stability. Credible minimum deterrence might require larger and more accurate forces. Development of effective missile defense would fundamentally alter the significance of nuclear forces, especially small ones. The implications of missile defense have not commanded much attention because of the continuing belief that effective defense against nuclear threats is technologically still not feasible. Only a few scholars have attempted systematic exploration of related questions (Glaser 1990; Glaser and Fetter 2001; Kartchner 2005; Powell 2003).

#### *Blurring of the Nuclear-Conventional Distinction*

The third difference lies in the development of long-range, highly lethal conventional weapons that can be deployed in roles previously assigned to nuclear weapons, and the development of small and more precise nuclear warheads that can be employed in bunker busting and targeting conventional military assets. These developments muddy the hitherto relatively clear distinction between conventional and nuclear war and could have implications for the integrity of the nuclear threshold and for stability. The so-called RMA also threatens to out-mode existing conventional military forces. It provides the United States a level of conventional military power—demonstrated in operations in the First Gulf War, Afghanistan, and Iraq—that creates apprehension in other states.<sup>10</sup> The RMA advantages the strong; nuclear weapons might become an even more important means to cope with superior conventional military force (see, e.g., Metz and Kievit 1994). Although the RMA may revolutionize conventional military engagements, it does not undo the nuclear revolution (Gray 2001).

#### *Increase in the Number of Nuclear Weapon States*

A fourth difference between the contemporary and the Cold War nuclear environment is in the increase in the number of nuclear weapon states. The number of overt nuclear weapon states has increased from five to seven, with Israel still maintaining its opaque status. Although India and Pakistan had already developed nuclear weapon capabilities during the Cold War, their move to overt status necessitates further development of their nuclear postures, capabilities, command and control arrangements, doctrines, and strategies. North Korea is a new entrant, and Iran is widely believed to be seeking nuclear weapons. In reality, the spread of nuclear weapons has been more gradual than the alarmist readings of nonproliferation advocates.

However, even a small increase in the number of nuclear weapon states poses challenges for the existing nuclear order (ElBaradei 2006). First there is the question of how to deal with nuclear weapon states that are outside the NPT system.

The U.S.–India nuclear deal grounded in U.S. long-term strategic thinking is an attempt to deal with this issue on a country-specific basis. How to deal with Pakistan, Israel, and North Korea (if the effort to dismantle its nuclear program is only partially successful) remains a vexing issue. Second is the issue of additional proliferation. There is international concern that successful nuclear quests by North Korea and Iran would set off a new wave of proliferation in Northeast Asia and the Middle East. Nonproliferation experts see the spread of nuclear weapons and ballistic missiles primarily as a threat to the existing regimes. An equally if not more important challenge is how to adapt these institutions to changing conditions. Failure to adapt will undermine them.

Finally, an increase in the number of nuclear weapon states raises the issue of stability. Some argue that the spread of nuclear weapons is destabilizing, while others argue that it can have stabilizing effects (Knopf 2002; Sagan and Waltz 1995). Based largely on deductive reasoning and extrapolating behavior from the Cold War or discarding that experience altogether, the stability–instability debate is unlikely to be resolved. Nevertheless, it draws attention to the possible implications of the spread of nuclear weapons to more states. Although proliferation and stability were also concerns during the Cold War, the present situation is deemed to be different because of the close proximity of the new nuclear weapon states and the intractable conflicts between them (India–Pakistan and Israel–Iran), the totalitarian or theocratic nature and/or fragility of regimes (North Korea, Iran, and Pakistan), their irrational and “roguish” behavior (North Korea, Iran, and Pakistan), and because of safety concerns (Buchan et al. 2003: 22–23). The United States and the Soviet Union did not share a politically significant boundary, and their heartlands were separated by thousands of miles, allowing space and time for response in crisis situations. Although China and Russia, and China and India, border each other, their heartlands are also relatively far apart. In other dyads (India–Pakistan, Israel–Iran, North Korea–Japan, and North Korea–China), however, Asian nuclear powers are neighbors or very close to each other with very short missile flight times between major cities. In nearly every case, political boundaries are sensitive and disputed, or there is a high degree of mistrust and conflict. Some of these states are also fragile, with the potential for regime collapse and change. All these considerations have implications for force posture, force security, and crisis stability. The spread of nuclear weapons to more states, along with the multiplicity of threats, also necessitate thinking about nuclear strategy, and especially deterrence, as a complex multisided enterprise rather than in the more familiar bilateral mode.

#### *Nuclear Terrorism*

The concern that nuclear weapons may be acquired and used by terrorist organizations is peculiar to the contemporary era. The belief is that if terrorist

organizations like Al-Qaeda were able to obtain such weapons, including dirty bombs, they would not hesitate to use them to attack populated areas in order to cause widespread death and fear. Proliferation to nonstate actors and nuclear terrorism have become major security concerns. Concerns under the heading of nuclear terrorism include theft of nuclear weapons or material, assistance to terrorist organizations by rogue states and black market networks like that of A. Q. Khan, attacks on nuclear facilities, and takeover of a collapsing nuclear weapon state by radical Islamic groups (Braun and Chyba 2004; Frost 2005; Sokolski 2006). Some have argued that the threat is exaggerated (Frost 2005); even if they acquire such weapons, terrorists are likely to use them strategically rather than in a punitive manner (Schelling 2006); and that deterrence can work against such threats.

Most analysts agree that the probability of terrorist organizations acquiring or producing nuclear weapons is rather low. However, given the enormity of destruction that can be caused, even a minuscule risk is considered too high. How to prevent the spread of nuclear material and weapons to nonstate actors is a key question that has to be addressed by the contemporary international community. This becomes more challenging when certain states are believed to be aiding and abetting terrorist groups or are in danger of failing. Another key question is how to deal with a nonstate actor that somehow comes into possession of nuclear weapons. How can deterrence be made to work against such groups? Deterrence against nonstate actors is commanding increasing policy and scholarly attention (Allison 2006; Galluci 2006). Transnational actors with nuclear weapons pose novel challenges to the construction and management of security order in a system of states. It compels us to think the unthinkable—about nuclear weapon roles, strategies, and implications outside the interstate system.

From the preceding overview it is clear that the contemporary nuclear context is significantly different from that of the post-1960s Cold War era. However, it is similar to the early period of the Cold War in two respects. One, both periods are formative. In the 1950s and 1960s, the United States and the Soviet Union were engaged in developing nuclear capabilities and strategies to deal with a new situation brought about by the nuclear revolution and the bipolar ideological and military confrontation. There was no established body of knowledge to draw on. The new civilian strategy analysts (Bernard Brodie, Thomas Schelling, and Herman Kahn, among others) considered earlier work by military strategists to be irrelevant to the new situation. The contemporary period is formative not so much from a technological perspective, but in the political-strategic context.<sup>11</sup> All states are rethinking their security policies, including nuclear policy and strategy, in the context of a radically altered strategic environment. Such rethinking, and this is the second similarity, is informed by the condition of asymmetry that was also a key parameter in the 1950s and early 1960s. The difference, however, is that nuclear weapons were central to the security thinking in the early

Cold War era. Today they appear less central and their role more indirect, but salient nevertheless.

### Necessity, Opportunity, and Difficulty

In light of the dramatically altered strategic and nuclear environments and the persistence and in certain cases expansion of nuclear arsenals, it is imperative to investigate the “new” roles and strategies for the employment of nuclear weapons. The ideas and lessons from the Cold War experience with nuclear weapons may or may not be relevant. We need a firm empirically grounded understanding of the role of nuclear weapons in the contemporary era and to develop “new” ideas and concepts. Such a study is opportune because we can now draw on almost two decades of post-Cold War experience. The contours of the transformed Asian security landscape and the new driving forces of change like the rise of Asian powers are becoming clearer (see Chapter 1). The ongoing reappraisal, modernization, and development of national nuclear doctrines and capabilities also provide a good vantage point to comparatively investigate the role of nuclear weapons in Asian security. Some may consider two decades of experience insufficient evidentiary basis. Others have justified theoretical inquiry on the ground that the five decades of Cold War experience are insufficient because of their ambiguous nature (Harknett, Wirtz, and Paul 2001: 4). We have to go with what we have. History is always subject to different interpretation across actors and over time. There is no definitive history. By design this study is empirically grounded. Though informed by relevant concepts and theories, it is not theory driven.

A few studies have investigated certain concepts and strategies (for example the history and relevance of nuclear deterrence in the post-Cold War era), nuclear policies and strategies of specific countries (the United States, Russia, India, China, Pakistan, North Korea, and Iran), the role of nuclear weapons in specific conflicts or dyads (India-Pakistan and United States-China), or specific problems (nuclear proliferation, for example). However, there have been very few or no systematic comparative inquiries of national roles and strategies of all relevant states or explorations of their implications for security, stability, and conflict resolution in the Asian security region as a whole. This study seeks to make a modest contribution in this direction. It includes a reconsideration of conceptual and policy issues and illuminates their significance through the study of the nuclear policies and strategies of most of the countries that are likely to play a major role not only in Asian international relations but also in the twenty-first-century world.

Such an investigation is also difficult. Information on nuclear forces and strategies is relatively thin and often highly classified. There is also a tendency to secrecy and ambiguity in the belief that hiding limitations enhances the security value of the relatively small nuclear forces of Asian states. Difficulty also arises from the fact that nuclear strategies are in an early stage or at turning points with

limited consensus on policy, posture, and strategy. In the case of Asian states, capabilities are often limited and do not match the requirements of professed strategies. Doctrines tend to be vague and in outline form. It is necessary to distinguish between declaratory policy, operational strategies, and actual behavior in crisis situations. These considerations will make analysis more difficult.

### Purpose of Study

The central purpose of the study is to develop an intellectual framework and a strong empirical base for understanding and theorizing about nuclear weapons in the context of a dramatically altered international security environment. To enable this, a crucial first step is to develop a deep understanding in comparative perspective of the purposes and roles assigned to nuclear weapons in the security thinking and practice of relevant states and to explore their implications for regional security, stability, and conflict resolution. With this in mind, this bottom-up study investigates three sets of issues:

1. The purposes, roles, strategies, and significance of national nuclear forces. The study explores the security problems, threats, and contingencies for which nuclear weapons are deemed relevant (or irrelevant), the specific roles assigned to nuclear weapons in dealing with them, the basic nuclear strategies of states, how these have been framed and operationalized, and if they are likely to alter. It also investigates the relationship of nuclear weapons to conventional military capability and to other instruments of policy to ascertain their overall salience in national security policy.
2. Commonalities and differences. The study explores similarities and differences across countries in the relevance and roles assigned to nuclear weapons and in nuclear strategies to ascertain if there is anything distinctive about nuclear security in Asia, and if a common vocabulary and discourse is evolving.
3. Regional implications. Here the study explores the implications of national nuclear capabilities and strategies for regional security structure and dynamics, if they have hindered or fostered conflict resolution, and their impact on stability in the Asian security region.

### Findings of the Study

The study advances five propositions on the significance and role of nuclear weapons in national security strategies and three propositions on the implications of nuclear weapons for security and stability in the Asian security region. Before outlining them, I would like to stress that these propositions must be considered a first cut, a basis for further research, debate, and refinement.

### *Significance of Nuclear Weapons in National Security Strategies*

On the significance of nuclear weapons, the study first posits that they play an indirect but important role with far-reaching implications. On the surface, nuclear weapons appear less central, often an adjunct to conventional military force that seems more significant in dealing with the many security challenges confronting Asian states. Even in the situations in which nuclear weapons are relevant, they appear to be in the background augmenting conventional forces and deterrence. The emphasis on modernizing conventional military capabilities would appear to support such a line of thinking. However, a closer look suggests that the influence of nuclear weapons runs deeper.

Nuclear weapons cast a long shadow that informs in fundamental ways the national security strategies of major powers and their strategic interactions. Nuclear weapons induce caution, set limits to military options in conflict management, require careful management of crisis situations, shape the way conventional force is used, and provide foundational insurance in situations of conventional military imbalance and against unanticipated developments. Under certain conditions nuclear weapons can also enhance bargaining leverage. Likewise, the nuclear umbrella is a key defining parameter in the national security strategies of allied states, including their decision not to acquire nuclear weapons. For states with existential security concerns, nuclear weapons are bedrock "weapons of the weak." They are the ultimate security insurance to guarantee survival. By setting limits and shaping the way force and the threat of force may be used, nuclear weapons provide the all-important context for the management of key regional conflicts. In the absence of deep ideological conflict and strategic military confrontation like that during the Cold War, nuclear weapons are likely to continue to remain in the background but deeply influence the national security strategies of relevant states and international politics in the Asian security region. The concern that certain nonstate actors may acquire nuclear weapons also exerts a deep influence on national and international security threat perceptions, security policies, and strategies, including the prosecution of the global war on terrorism. The possible acquisition of the "ultimate" weapon by nonstate actors poses novel challenges to an international system constructed on the basis that states are the only legitimate containers and users of violence.

Second, the primary role of nuclear weapons in interstate relations in the foreseeable future is basic or central deterrence (detering nuclear and large-scale conventional aggression against the homeland) in a condition of asymmetric power relationships. In addition, nuclear deterrence serves as a backstop or insurance to avoid blackmail, preserve strategic autonomy (freedom to act), and cope with unanticipated security developments in a changing strategic environment. The offensive (compellence, coercive diplomacy, war fighting) and defensive (counterforce

damage limitation) roles of nuclear weapons as well as strategic defense against nuclear weapons are likely to remain relatively marginal in utility and unlikely to surpass the deterrence role of nuclear weapons in the foreseeable future. Only the United States is developing significant offensive and defensive capabilities and strategies. Technological limitations, funding constraints, the preferences and capabilities (conventional and nuclear) of other states, and the generally stable political and strategic environment in the Asian security region are likely to limit the employment of nuclear weapons in these roles.

Although deterrence continues to be the dominant strategy for the employment of nuclear weapons, the conception and practice of deterrence differ substantially across states and from that during the Cold War. This leads to the third and fourth propositions. The third finding is that widely differing goals and a broad spectrum of capabilities have resulted in an array of deterrence strategies ranging from existential deterrence through minimum deterrence to assured retaliation. All these strategies rely on the threat of punishment, but they differ on the force level and structure required to deter and on the scope of threats to be deterred. Because of their limited capabilities and small nuclear forces, weaker powers opt for deterrence strategies (existential and minimum deterrence) that emphasize uncertainty, risk of escalation to nuclear war, and absolute destruction rather than a secure second-strike capability that will result in certain retaliation and "unacceptable" damage as in an assured retaliation strategy. Weaker powers opt for existential and minimum deterrence strategies out of necessity; their preferred end point is assured retaliation. Countries with relatively large nuclear arsenals have retained assured retaliation capabilities against substantial nuclear weapon states. Although a range of deterrence strategies also existed during the Cold War, assured retaliation between the two superpowers provided the dominant frame for thinking about nuclear deterrence. All contemporary national deterrence strategies are still in a formative stage, and the new nuclear weapon states often do not have the requisite capability to effectively implement professed strategies. It is thus important to distinguish between declaratory and operational doctrines and actual behavior in particular crisis situations. These can vary substantially.

Fourth, the study argues that the absence of severe confrontations and the limited capabilities of the relatively small Asian nuclear forces have resulted in general deterrence postures. Although the United States has the largest and most sophisticated nuclear arsenal and seeks additional capabilities to deal with new threats, it has not issued actor-specific threats that would result in nuclear retaliation or developed actor threat-specific capabilities. Its threats to rogue states and terrorist groups, for example, tend to be general, and those in relation to contingencies involving China are vague and implied. Other countries have chosen to focus on their relatively more urgent concerns, deferring response to lesser ones or attempting to defuse them. Even on primary concerns, states rely on general and

implied threats without specifying red lines or specific response. There are very few instances where hostilities are intense and immediate and have resulted in the issuance of specific nuclear threats and development of capabilities to carry out such threats. In all other cases, nuclear deterrence in Asia is implied and indirect. States maintain a broad range of capabilities, including nuclear weapons, and issue general threats to dissuade other states from seriously contemplating aggression.

The final proposition on the significance and role of nuclear weapons is that the strategy of extended nuclear deterrence continues to be relevant for the security of certain U.S. allies. In addition to deterring attacks on allies and preserving their strategic autonomy, extended nuclear deterrence reassures allies and prevents them from pursuing independent nuclear options. National sensitivities and competing threat perceptions and demands of allies make crafting and implementing an effective and credible strategy of extended deterrence more difficult.

#### *Uniqueness and Common Discourse*

The role and significance of nuclear weapons in Asian national security strategies do not appear unique. They appear to be a function of specific histories, strategic circumstances, security challenges, and national nuclear capabilities. The tendency toward ambiguity and secrecy, for example, is not a peculiar Asian cultural trait but a function of the belief that such ambiguity and secrecy enhance the deterrence value of small nuclear forces. During the Cold War, Henry Kissinger (1957) posited that a strategy of ambiguity was employed by the Soviet Union and China in their revolutionary struggle against the West. Asian nuclear weapon states are not immune to the logic of nuclear weapons and their consequences.

On common discourse, although certain states use similar terms such as *minimum deterrence* and *no first use*, their interpretations vary across countries. There is no common vocabulary, and a common discourse is noticeable by its absence. A U.S.–China nuclear dialogue appears to have started, but there is no such dialogue between the United States and other countries or among Asian countries. A common discourse has been hindered by the tendency toward secrecy and ambiguity, by the reluctance of the recognized nuclear weapon states to accept new entrants, and the tendency rooted in political correctness to downplay the security role of nuclear weapons. However, as nuclear weapons will continue to exist and nuclear arsenals will expand in size and capability, it is imperative to begin bilateral and multilateral dialogues to foster a common understanding of the roles and implications of nuclear weapons. Thomas Schelling even advocates educating terrorist groups on the catastrophic consequences of using nuclear weapons.<sup>12</sup>

#### *Implications for National and Regional Security*

In exploring the implications of national nuclear strategies and more broadly nuclear weapons for national and regional security, this study advances three

propositions. First it posits that nuclear weapons strengthen weaker powers and have a modifying effect on structure and its consequences. However, they do not fundamentally alter the distribution of power to make a difference in system structure or the pattern of security interaction. Nuclear weapons have not substantially altered the security dynamics in Asia. Certain nuclear strategies such as compellence, counterforce, and limited war could and have intensified existing threat perceptions and lines of enmity. However, they have not created new ones. Other strategies such as existential, minimum, and extended deterrence, and a posture of general deterrence have not exacerbated security situations. In fact, they have had an ameliorating effect.

By contributing to greater self-reliance in deterrence, nuclear weapons reduce the salience of external balancing as a rationale for alliance among nuclear weapon states. However, alliances and alignments among them still make sense for other reasons. For nonnuclear weapon states that perceive a nuclear threat, alliance with a nuclear weapon state that can extend the deterrence function of its nuclear arsenal provides an incentive for alliance formation and sustenance. On conflict resolution, nuclear weapons do not advance or obstruct settlement of disputes. When they are relevant, nuclear weapons contribute to a situation of no war and no peace. The logic of the enormous destruction power of nuclear weapons argues against conflict resolution through the physical use of violence. However, nuclear weapons are not a barrier to peaceful conflict resolution. The grave risks associated with escalation to nuclear war in certain cases have induced parties to explore a diplomatic settlement. Dispute settlement, however, hinges on the willingness or unwillingness of conflicting parties to negotiate and compromise on political differences that underlie the dispute.

Second, the study posits that nuclear weapons have contributed to the security of states and reinforced stability in the Asian security region that is underpinned by several pillars. Although there could be some destabilizing consequences, thus far nuclear weapons have not undermined stability in Asia. In fact, they have contributed to stability by assuaging national security concerns, preventing the outbreak of major wars, strengthening the status quo, increasing deterrence dominance, and reinforcing the trend in the region toward a reduction in the salience of force in international politics. For a number of reasons (acceptance of the political and territorial status quo; increase in the political, diplomatic, and economic cost of using force in a situation of complex interdependence; and the impracticability of resolving conflicts through the use of force) the offensive roles of force have been on the decline in Asia. Nuclear weapons reinforce this trend by enhancing deterrence dominance and making the cost of war among nuclear weapon states catastrophic and prohibitive, especially in a situation of complex interdependence.

Finally, the study posits that if it is to continue to be relevant, the nuclear order that was forged during the Cold War era must adjust to accommodate con-

temporary strategic realities, including a focus on Asia that has already become a core world region and may become the geopolitical center of the world in the twenty-first century. The new nuclear order must sustain deterrence in a situation of asymmetry; accommodate change by bringing in nuclear weapon states outside the NPT system; deal with the further spread of nuclear weapons by addressing security concerns of relevant states as well as through denial strategies; prevent the spread of nuclear material, technology, and weapons to nonstate actors; and facilitate trade, investment, and technology transfer to promote the development of nuclear energy, with adequate safeguards in place to prevent leakage of proliferation-sensitive parts.

The above reading of the roles of nuclear weapons in national security strategies and their regional security implications is a consequence of a "politics in command" approach that sees nuclear weapons as an instrument of state policy and understands their roles and implications in the context of the overall national priorities of states in a complex Asian political, strategic, and economic landscape. Such a "benign" reading may be controversial and unacceptable to those who view nuclear weapons as the drivers of insecurity or for arms control, especially nonproliferation advocates who tend to see the world through the dangers of nuclear weapons.

### Premises and Definition

Two premises inform this study. First, as will be evident by now, a security perspective that attaches importance to nuclear weapons but does not prejudge their salience girds this study. It takes seriously the security rationales advanced by states for the development of nuclear capabilities or reliance on those of an ally. In the aftermath of the Cold War, nonproliferation has been the dominant lens for the study of nuclear weapons. I argue that, while the spread of nuclear weapons remains a key international security concern, an exclusive or near exclusive reliance on the nonproliferation lens, by rejecting or according insufficient attention to the security value attached to nuclear weapons, obscures and limits our understanding of the broader salience and role of nuclear weapons in national security strategies and the international implications that flow from them.

Nuclear arsenals will continue to exist and inform the security policies of most major countries in the Asian security region for the foreseeable future. A perspective like that adopted in this study can provide valuable insights on a range of issues that cannot and would not be addressed by a nonproliferation approach. The insights would include a comprehensive understanding of the security policies and strategies of states and nonstate actors possessing or seeking to acquire nuclear weapons; the security challenges for which nuclear capabilities are considered relevant; the nature and content of national nuclear strategies; their impact on subregional and regional security dynamics; and consequences for security

interdependence, stability, and security management. Investigation of these and related issues is crucial to understanding security in Asia and to the effort to build regional and global institutions to manage security, as well as to limit, control, and manage nuclear weapons and their consequences. An exclusive focus on preventing or countering proliferation would obscure these issues or deal with them only indirectly, leading to unnecessarily benign or alarmist readings of nuclear-related developments. The ethics of responsibility require us to address the nuclear situation in all its dimensions.

Second, this study proceeds on the basis that Asia has become a core region of the world with its own distinct dynamics and that it is likely to become more consequential in international affairs. The study also treats Asia defined broadly as a single security region. The distinctiveness and increasing significance of Asia are addressed in Chapter 1. Here I limit myself to the definition of Asia as a single security region and the broadening of that definition, if only tentatively, in this study to include the Middle East. This premise informs the delimitation of the study to states that are part of the Asian security region and the exclusion of Britain and France from it.

In line with my earlier work, Asia is conceptualized in this study as a single security region comprising several interconnected subregional clusters in North-east, Southeast, South, and Central Asia, with Northeast Asia as its core (Alagappa 1998, 2003). This conceptualization is based on both security interdependence and growing internal and external recognition. The lines of amity and enmity that are regionally significant in Asia center largely on China but also on India and Japan. Beijing's security concerns span all four subregions, and China is a primary driver of international security for many countries in these subregions. India's security concerns span South, Southeast, Southwest, and Central Asia, and China in Northeast Asia. New Delhi's security relations with Tokyo appear to be on the uptick. Japan's security concerns span Northeast and Southeast Asia; South and Central Asia are also of increasing interest to the government in Tokyo. Conceptualizing Asia as a security region does not exclude countries from outside the region. Asia is the security footprint, but certain aspects of conflict formation and security governance in Asia, especially among the major powers, cannot be explained without reference to key outside powers, particularly the United States. As Chapter 1 will show, the United States plays a crucial security role in the region. Its policies influence major power relations in significant ways, and Sino-American relations are emerging as the central security dynamic affecting Asia. Thus, although not physically in the region, the United States is conceptualized in this study as part of the Asian security region. Although its impact does not compare with that of the former Soviet Union, Russia is part of the Asian security region by dint of its physical geography, its relevance to security in Northeast Asia, and its increasing interaction with China and India.

The delimitation of Asia as a single security region was received with skepticism in the 1990s, but developments since then have reinforced security interdependence among the various subregions in Asia and my case for such delimitation. All of the following are testimony to the increasing interconnectedness among the major powers in the Asian security region: the growing power and influence of China; rising concerns about international terrorism; Japan's developing strategic relations with Australia and India; India's sustained economic growth and its growing relations with all major powers, especially the growing economic, strategic, and defense relationship with the United States; the growing salience of the Sino-Indian relationship; the increasing Chinese, Russian, and Indian interest in Central Asia, and the newfound American interest and role in that region; the demonstrated interest of Japan and Southeast Asian countries to draw all relevant major powers into Asian regional institutions; the footprint and expanding membership of the Association of Southeast Asian Nations (ASEAN) Regional Forum and the East Asian Summit; the growing salience of the Shanghai Cooperation Organization; and trilateral dialogues such as those among China-India-Russia, the United States-Japan-India, and the United States-China-Japan. The deepening security connections among the subregions further contribute to the development of an Asia-wide security region. It should be noted that a region is used here to denote a group of countries whose in-group intensity of interaction is significant for their well-being or exceeds that with external actors (or both); it does not necessarily imply greater cohesion, identity, or ability to be a coherent actor in internal and international matters.

This study tentatively broadens the definition of Asia to include the adjoining Middle East region. Interactions based on religion, terrorist networks, energy supply, labor migration, and trade and investment, among others, have raised the importance of the Middle East for Asian countries. The strategic concerns of the major Asian countries increasingly include the Middle East. Islam and trade were historically important links connecting the Arab world, Persia, South Asia, Southeast Asia, and Central Asia. The oil supplies of the Arab world on which several major Asian countries are heavily dependent, the resurgence of Islam, the emergence and radicalization of some transnational Islamic groups, the Israeli-Palestinian conflict, the wars in Iraq and Afghanistan, and the regional aspirations of Iran are some of the modern-day issues that link the Middle East to Asia. This study investigates whether nuclear weapons deepen security interconnectedness between these regions or subregions. Nuclear weapons inform the security thinking of several states in the adjoining Middle East, which has one undeclared nuclear weapon state (Israel), and at least one other state (Iran) that is believed to have a covert nuclear weapon program. Recent developments appear to have rekindled interest in a nuclear option in Egypt. Concerned about the Iranian nuclear program, the Gulf Cooperation Council decided in December 2006 to

establish a nuclear research program for the first time. A nuclear Israel has not directly affected security in Asia. Would a nuclear Iran, a state with regional ambitions, deepen connections among South Asia, Southwest Asia, and the Middle East? What would be the security implication of this, and would it justify broadening the definition of the Asian security region to include the Middle East?

### About the Book

This study is organized in three parts. The Introduction and Part I set out the rationale, purpose, and propositions advanced in the study; they explore the contemporary security environment in and affecting Asia, as well as likely changes, with particular reference to drivers of insecurity and change; and they develop a historical and conceptual perspective to guide investigations in the ensuing chapters. Part II investigates the nuclear policies and strategies of six nuclear weapon states (the United States, Russia, China, India, Pakistan, and Israel) in the broadly defined Asian security region, four states that rely on the U.S. nuclear umbrella (Japan, South Korea, Taiwan, and Australia), two aspirant states (North Korea and Iran), nonstate organizations in Asia that may seek nuclear weapon capability, and the ASEAN states as a group that seek to make Southeast Asia a nuclear weapon-free zone. Drawing on the case studies in Part II, the two chapters in Part III explore the significance and roles of nuclear weapons in national security strategies and their implications for international security interdependence, conflict management, and regional stability.

### Notes

1. Glenn Snyder (1961) first articulated the distinction between deterrence through punishment and deterrence through denial in 1959.
2. Other factors that have been advanced as contributing to the "long peace" include structural bipolarity (Waltz 1979), obsolescence of war among major powers (Mueller 1989), and reduction in the salience and spoils of war in the context of growing economic interdependence (Rosecrance 1986). It is important not to overstate the Euro-centric idea of a long peace. The first two to three decades of the Cold War era were in fact marked by several crises between the superpowers, and there were several "hot" wars involving them, especially in Asia (Korea, Vietnam, Afghanistan). The "long peace" in Asia only began in 1979.
3. George W. Bush, Graduation speech at West Point, June 1, 2002. Available at <http://www.whitehouse.gov/news/releases/2002/06/20020601-3.html>.
4. George W. Bush, State of the Union Address, 2002. Available at <http://www.whitehouse.gov/news/releases/2002/01/20020129-11.html>.
5. The George W. Bush administration did, however, seek to differentiate between responsible democratic states like India and "rogue" states like Iraq, North Korea, and Iran.
6. Mohamed ElBaradei (2006) states that "under the NPT there is no such thing as a 'legitimate' or 'illegitimate' nuclear weapon state." The recognition of five states as hold-

ers of nuclear weapons was regarded as a matter of transition. The NPT does not confer permanent status on the five countries.

7. In 1964 China adopted an NFU policy. In 1995 Beijing expanded this commitment when it issued an unconditional negative security assurance. See China's National Statement on Security Assurance of April 5, 1995 available at <http://www.nti.org/db/china/engdocs/npto495a.htm>. Western analysts have tended to view the NFU commitment as symbolic and a reflection of operational constraints, rather than as a commitment to an altruistic principle. See, for example, Gill, Mulvenon, and Stokes (2001). Iain Johnston (1995/6) notes that many military strategists do not support the NFU policy. Major General (ret.) Pan Zhenqiang (2002) has presented certain scenarios (Washington's tactical use of nuclear weapons in the Taiwan Strait conflict, U.S. conventional attacks on China's nuclear weapons and facilities, and limited nuclear attack on China) that might force China to reconsider its NFU policy. See also Dingli Shen (2005).

8. See "DPRK Foreign Ministry Clarifies Stand on New Measure to Bolster War Deterrent." Korean Central News Agency of the DPRK, October 3, 2006.

9. Layne (1993) and Waltz (1993), for example, argued that unipolarity would be short lived.

10. Biddle (2000) disputes the claim that there has been an RMA and argues that the ability to manage complexity underpins the widening gap in military power.

11. It is possible to argue that missile defense, when it becomes effective against substantial nuclear threats and the RMA together, may mark a fundamental technological change with strategic consequences.

12. Thomas Schelling made this point in the discussion of the paper "Prospects for Nuclear Terrorism in Asia" at the first workshop of the East-West Center Washington project on "Nuclear Weapons and Security in 21st Century Asia" in Washington, D.C., May 1-3, 2006.

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## PART I

*Historical, Strategic, and  
Conceptual Perspectives*