

Ballistic Missile Threats, Missile Defenses, Deterrence, and Strategic Stability

by Camille Grand

Institut Français des Relations Internationales (IFRI)

Paris, France

Despite its frequent use in treaties, official statements, and academic papers addressing nuclear strategy and arms control, the concept of strategic stability remains poorly defined.¹ During the Cold War, strategic stability generally meant the preservation of the U.S.-Soviet nuclear balance. As described by Lawrence Freedman, the issue during the Cold War was how to develop a “strategy of stable conflict.”² As early as the mid-1950s, experts had begun analyzing the basis for stability in the super-power relationship.³ Much subsequent writing about nuclear strategy studied in great detail the best means of ensuring stability in the nuclear era.⁴

Today, the concept of strategic stability is being used—and sometimes misused—in a wide variety of contexts. It is at the very core of the current controversy over the ABM Treaty, and has become a key feature of Russian disarmament

diplomacy.⁵ The concept figured in the debates during the 2000 Non-Proliferation Treaty Review Conference. The Final Document issued by the review conference refers to “strategic stability” in the paragraph that addresses the ABM Treaty.⁶ Even though the exact term was not used, the concept of strategic stability also underlay the caveat covering a wide variety of “practical steps” called for in the Final Document: “steps by all the nuclear-weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all.”⁷

While noting the use of the concept in tactical maneuvers and semantic debates during arms control negotiations, it is nevertheless worthwhile to acknowledge that there is an ongoing debate on strategic stability. The end of

¹ The views expressed in this essay are solely those of the author. Comments and suggestions are welcomed at grand@ifri.org.

² Lawrence Freedman, *The Evolution of Nuclear Strategy* (London: IISS/McMillan Press, 1981), ch. 5.

³ See C.W. Sherwin, “Securing Peace through Military Technology,” *Bulletin of the Atomic Scientists* 12 (May 1956).

⁴ The classics of this literature include Thomas Schelling, *The Strategy of Conflict* (Oxford: Oxford University Press, 1960); and Hermann Kahn, *On Thermonuclear War* (Princeton: Princeton University Press, 1960).

⁵ For example, see the comments by Ambassador Yuri Kapralov, “Effects of National Missile Defense on Arms Control and Strategic Stability,” paper presented at the forum “The Missile Threat and Plans for Ballistic Missile Defenses: Impact on Global Security,” Rome, Italy, January 18-19, 2001, <<http://www.mi.infn.it/~landnet/NMD>>.

⁶ The ABM Treaty is now traditionally referred to as a “cornerstone of strategic stability” in U.S.-Russian statements, and is regarded similarly by many other countries.

⁷ Final Document of the 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT/CONF.2000/28), Volume I, Part I, Review of Article VI, paragraph 15.

the Cold War and the continued proliferation of missiles and weapons of mass destruction do challenge the traditional approach to strategic stability based on the nuclear balance and strategic arms control. The question is whether this traditional approach ought to be preserved at all costs, or are we entering a new era—full of opportunities and risks—characterized by a new paradigm that demands we reconceptualize strategic stability?

STRATEGIC STABILITY: A KEY FEATURE OF THE COLD WAR EQUILIBRIUM

In the Cold War era, strategic stability was primarily defined as maintaining the strategic nuclear balance between the United States and the Soviet Union. Both the SALT treaties and the ABM Treaty aimed to preserve strategic stability in the superpower relationship. It took approximately two decades to develop the following key features of Cold War strategic stability.

Preserving An Approximate Nuclear Balance Between The Two Superpowers

Preserving a nuclear balance did not mean achieving comprehensive nuclear parity at all levels but involved the more difficult task of avoiding imbalances that were—rightly or wrongly—perceived as dangerous. Early in the Cold War, strategic stability primarily meant building a secure and stable relationship, and avoiding strategic doubts that would have led to a major war by mistake or miscalculation. In the 1960s, the classical formulation “mutual assured destruction” became an axiomatic motto and was viewed as the pathway to peace. In this context, one could argue that the high readiness of nuclear forces, combining hair-trigger alert,

launch-on-warning procedures, and an ensured second-strike capability, constituted a key feature of Cold War strategic stability. It is also worthwhile to note that this type of strategic stability also involved the existence of “overkill” capabilities and an acceptance of mutual vulnerability to nuclear destruction.

Developing Crisis Management Tools

Interestingly, Cold War strategic stability did not entail avoiding competition between the superpowers. As already mentioned, strategic stability was viewed more as a “strategy of stable conflict” than as a means of maintaining an armed peace. Ideological rivalry and regional conflicts remained key features of the Cold War era. The development of crisis management tools, therefore, became an integral part of the superpower relationship. Diplomacy (summits, direct consultations etc.) was one of these tools, but military confidence-building measures and specific nuclear force postures also played a role.

Arms Control As A Strategic Stability Tool

At a later stage in the Cold War, arms control also became a key feature of strategic stability. By creating ceilings on nuclear forces, the strategic arms limitation talks and the SALT treaties formalized strategic stability by defining the nuclear balance—at least at the strategic level. While not preventing arms races in certain niches (such as theater nuclear weapons and naval weapons, among others), arms control provided a reassurance that at the central level, an approximate and acceptable balance was maintained. Even though arms control became the dominant paradigm in strategic thought for some time, other schools of thought existed. Critics of arms control underlined the risks associated with it and insisted on the need to move away from its central tenets.

Special Emphasis On Limiting Defensive Systems

Even though the United States and the Soviet Union both developed a number of ambitious ABM programs, it became clear as SALT I was negotiated that limits on defensive systems were at least as important as limits on strategic offensive systems.⁸ The ABM Treaty thus became an integral part of the SALT process, since it not only prevented an additional costly arms race in defensive and offensive systems, but also because tough limits on ABM systems were recognized as a key feature of strategic stability. It was not a coincidence that the debate over the Reagan administration's proposed Strategic Defense Initiative was the last major U.S.-Soviet strategic controversy of the Cold War.

Managing Second-Rank Nuclear Powers

Although the emergence of second-rank nuclear powers (the United Kingdom, France, and China) created some uncertainties and imbalances, these were manageable. The limited size of these powers' arsenals made it possible to neglect them in the overall balance, as none of them ever possessed more than one percent of the global nuclear stockpile. Moreover, the decision of the three second-tier nuclear powers to opt for a primarily defensive stance, as far as their national nuclear postures were concerned, made their nuclear policy compatible with overall strategic stability.⁹ The potential emergence of other nuclear powers, as long as it remained limited, was also manageable. For example, countries such as Israel, South Africa,

⁸ For a good account, refer to Daniel Smith, "A Brief History of 'Missiles' and Ballistic Missile Defense," in *National Missile Defense: What Does It All Mean?* CDI Issue Brief, Center for Defense Information, Washington, DC, September 2000.

⁹ Classical deterrence theory would call it "deterrence by punishment."

or India had regional security ambitions during the Cold War and lacked the capabilities to upset superpower strategic stability.

TRADITIONAL STRATEGIC STABILITY CHALLENGED

Some of these traditional key features of strategic stability remain in place and have even been strengthened by the end of the Cold War. The strategic nuclear balance has evolved since 1991 into an imperfect but real form of strategic parity at lower levels. The end of the East-West conflict has substantially reduced conflict among great powers, making crisis management easier and more direct. In the late 1980s and early 1990s, bilateral and multilateral arms control developed at a fast pace, including in the nuclear field. Despite an ongoing debate in the United States, many continue to view the ABM Treaty as the "cornerstone of strategic stability." The second-rank nuclear powers are all more or less committed to supporting overall strategic stability. WMD proliferation has seen both good news and bad news in the last decade, but remains at least partially under control.

Nonetheless, there is a growing feeling in academic and governmental circles that traditional strategic stability is increasingly irrelevant. While there is a broad understanding that the concept ought to be preserved, an emerging debate has focused on reconceptualizing strategic stability. It might, therefore, be appropriate to list the factors currently challenging strategic stability.

Increasing Indifference To The Bilateral Nuclear Balance By The United States And Russia

For a number of reasons, nuclear parity is no longer viewed as a strategic objective, even though some in Russia continue to view it as a political objective owing to its link with great

power status. Both nuclear superpowers increasingly tend to view strategic parity as a burden rather than an assurance, and sooner or later this trend is likely to have an impact on nuclear posture reviews, and on the evolution of the bilateral arms control process, including the fate of the ABM Treaty. The Bush administration has already signaled its inclination to move in this new direction. A recent report of the National Institute for Public Policy, to which analysts who now hold senior positions in the new administration contributed, provided a detailed outline of such an approach to nuclear policy.¹⁰

A Growing Emphasis On Missile And WMD Proliferation

Proliferation of missiles and WMD is not a new phenomenon; one could even argue that it has slowed down in the last decade thanks to the strengthening of the various nonproliferation regimes.¹¹ It is nevertheless just as true that WMD proliferation has become a more important and tougher strategic challenge.¹² Trends in modern conflicts provide one key explanation. First, major powers (especially in the West) are likely to be involved in major regional conflicts in at least two regions (the Middle East and Northeast Asia). In each region, they face potential adversaries possibly

armed with missiles and chemical, biological, or nuclear weapons. Second, the overwhelming superiority of Western armed forces at every level of the conventional battlefield makes the possession, and possibly the use of WMD, increasingly attractive to states contemplating a conflict with the West. This choice is very rational. Finally, missiles are a uniquely effective tool in this context, as they are at the moment virtually unstoppable and can achieve ranges capable of reaching U.S. or allied territory. Equipped with a WMD warhead, they therefore carry a distinctive deterrent and retaliatory value that cannot be negated, although the payload is the core issue. Consequently, there are about 25 countries that either have ballistic missiles or are seeking to acquire them. Of these, at least a handful—the DPRK, Iran, Iraq, India, and Pakistan—are expected to develop or acquire long-range missile capabilities in the future.

Declining Confidence In Arms Control And Nonproliferation Regimes

Particularly (although not exclusively) in the United States, doubts are growing about the ability of the nonproliferation regimes to handle the threat from WMD and missiles. Some critics view the various nonproliferation treaties as useful in establishing norms for the majority of states, but useless for noncompliant states, whether they are parties to a particular treaty or not. These treaties are also lambasted for creating a dangerous sense of false security among those countries that adhere to them in good faith. Moreover, critics argue that the verification and compliance provisions of these treaties are inefficient and burdensome for states that honor them, but not sufficiently effective to catch cheaters. From this point of view, the main issue has now become “consequence management,” or how to deal with the future use of WMD through active and passive defenses and counterproliferation tools.

¹⁰ See National Institute for Public Policy, “Rationale and Requirements for U.S. Nuclear Forces and Arms Control,” Volume I, Executive Report, January 2001, <<http://www.nipp.org>>.

¹¹ On this point see Joseph Cirincione, “Assessing the Assessment: The 1999 National Intelligence Estimate of the Ballistic Missile Threat,” *The Nonproliferation Review* 7 (Spring 2000), p. 125-137.

¹² At least in the United States, the turning point in the debate was the report of the Rumsfeld Commission. Report of the Commission to Assess the Ballistic Missile Threat to the United States, Executive Summary, July 15, 1998, <<http://www.house.gov/hasc/testimony/105thcongress/BMThreat.htm>>.

The Reduced Salience Of Nuclear Deterrence

Nuclear deterrence could have provided a simple answer to the strategic challenge of WMD proliferation, but the direct transfer of Cold War strategies and postures seems largely inappropriate unless “vital interests” (to quote the French concept) are at stake. The United States is particularly keen to find ways to address scenarios in which deterrence would not or could not work. Such scenarios are a primary motivation for the growing interest for defenses. The view is that deterrence could be bolstered by the presence of missile defenses. This approach can be criticized, although one must acknowledge that decreased reliance on nuclear weapons in Western strategic culture is a political fact that must be taken into account.¹³

Renewed Interest In Ballistic Missile Defense

Renewed interest in ballistic missile defenses derives directly from the issues discussed above. BMD (both TMD and NMD) provide a technical fix to a difficult strategic problem, and thus offer those countries that acquire them an unmatched military tool. The problem is that the feasibility of BMD remains debatable and a completely effective missile defense remains a myth, even in the case of a very limited threat (around 20 long-range missiles). Nevertheless, in the United States and elsewhere, many are now convinced that NMD (whatever technical forms it takes) will ultimately work and in the future

¹³ For a fresh look at nuclear issues, see Darryl Howlett, Tanya Ogilvie-White, John Simpson and Emily Taylor, *Nuclear Weapons Policy at the Crossroads* (London: Royal Institute of International Affairs, 2000). On NMD and deterrence see Burkard Schmitt ed., “National Missile Defense and the Future of Nuclear Policy,” Occasional Paper No. 18, Western European Union-Institute for Security Studies, August 2000, <http://www.weu.int/institute/publ_uk.htm>.

provide an effective missile defense at least against a limited threat. The main casualty of future NMD deployment is likely to be the “cornerstone” of traditional strategic stability, the ABM Treaty, or at least its current provisions. A deal to modify the treaty could be reached by Moscow and Washington, but the amendments necessary to clinch such a deal are likely to radically transform it.

CONCLUSION: A NEW PARADIGM FOR BETTER AND FOR WORSE

Most analysts would agree that the time has come to rethink strategic stability as an organizing concept of international security. Current trends, such as the legitimate emphasis put on proliferation as the major strategic challenge, the erosion of the bilateral dominance of the nuclear order, the reduced salience of nuclear weapons in Western strategies, the emergence of new regional powers, the distrust for traditional arms control, and the growing reliance on new military tools, form the foundation for a new paradigm.

Key Issues

While it is impossible to forecast the security benefits and setbacks that can be expected in the future, they will be shaped by several factors:

- **The evolution of security relations among the major powers** With or without NMD, good relations among the major powers is the first and foremost requirement of enhanced stability. After a phase of converging policies and joint effort to enhance international security, the last few years have seen these relations deteriorate.
- **The interaction of bilateral, regional, and global security** Overall strategic stability is no longer determined by a bilat-

eral balance, but is the result of a complex interaction between various bilateral, regional, and subregional relationships.

- **The success or failure of traditional nonproliferation regimes to stop or limit the spread of missiles and WMD** The nonproliferation regimes have successfully passed the test of universality and have established WMD nonproliferation as a robust norm challenged by only a few countries. These regimes now face a tougher challenge: gaining compliance with this norm from the core group of countries reluctant to accept it.
- **Future steps in the field of nuclear arms control** The ability of the nuclear weapon states, in particular Russia and the United States, to reduce their nuclear arsenals—whether through deep unilateral cuts or more traditional treaty-based approaches—will be a key factor in demonstrating the emergence of a new stable environment.
- **Diplomatic and technical forms of future U.S. BMD deployment** The incoming Bush administration faces several major choices regarding the deployment of BMD. Diplomatically, BMD deployment could involve a greater or lesser degree of cooperation with other countries. The technology chosen for BMD will have also a political impact; some technologies are viewed by other states as less threatening for strategic stability.
- **Future role of deterrence** Nuclear force postures adopted by the nuclear-weapon states and by emerging nuclear powers can be more or less stable. Hair-trigger alert postures, disarming first strike capabilities, and large numbers of tactical nuclear weapons can lead to misperception and miscalculations, fostering instability.

Possible Features Of Renewed Strategic Stability

What steps can be taken if the international community desires to move from the current traditional strategic stability into a more stable international system that responds to the current strategic challenges? If we want to avoid entering an era of major strategic instability, the path is narrow but still visible; it should probably involve the following items:

- **Preserving and strengthening the existing nonproliferation regimes rather than undermining them** The shift to a more stable environment involves the preservation of nonproliferation as a norm, in order to avoid a world filled with countries armed with WMD and missiles.
- **Reforming export controls to meet new challenges** Reform is particularly urgent in the field of missile technologies. The existing export control regimes appear to have reached their geographic and conceptual limits.
- **Addressing with renewed vigor all current and future noncompliance cases** Appropriate verification measures and possibly sanctions will have to be used to handle noncompliant states and strengthen NPT, the CWC, and the BWC.
- **Reaffirming the balance between disarmament and nonproliferation at the core of the NPT** If the non-nuclear weapon states have a legitimate right to demand further steps in nuclear disarmament, then the NWS must continue to take steps that reaffirm the bargain at the core of the NPT.
- **Developing an arms control and nonproliferation agenda for the next decade** The agenda laid out at the first U.N. Special Session on Disarmament has

almost been completed; now new and balanced objectives must be defined.

- **Reviewing the offense/defense balance in national security policies** In rethinking the role of nuclear weapons in the national defense policies of the nuclear weapon states during the coming decades, the balance between offensive means and defensive means (BMD) should be reconsidered as BMD technologies progress.¹⁴ The right balance cannot be defined in advance and is likely to vary from one country to another.

More than any other factor, however, the prospects for the development of a new concept of strategic stability depend on whether states adopt cooperative or unilateral approaches in responding to the evolution already underway. Even though the temptation to take unilateral action is strong, the path from old-fashioned strategic stability to a new paradigm that adequately addresses core international security issues may prove very destabilizing without genuine efforts to act cooperatively.

¹⁴ On deterrence and the offense-defense debate, see Robert Jervis, "Cooperation Under the Security Dilemma," *World Politics* 30 (January 1978), pp. 167-214.