

This article was downloaded by: [68.167.117.74]

On: 27 September 2013, At: 10:14

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



The Nonproliferation Review

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/rnpr20>

REGIONAL PERSPECTIVES ON LOW NUCLEAR NUMBERS

James Clay Moltz

Published online: 27 Jun 2013.

To cite this article: James Clay Moltz (2013) REGIONAL PERSPECTIVES ON LOW NUCLEAR NUMBERS, The Nonproliferation Review, 20:2, 195-204, DOI: [10.1080/10736700.2013.799829](https://doi.org/10.1080/10736700.2013.799829)

To link to this article: <http://dx.doi.org/10.1080/10736700.2013.799829>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

SPECIAL SECTION

REGIONAL PERSPECTIVES ON LOW NUCLEAR NUMBERS

An Overview

James Clay Moltz

President Barack Obama has outlined a course toward lower numbers of US nuclear weapons. Much attention has been paid to the US-Russian context, where deterrence is believed to be basically stable and conditions ripe for gradually reducing arsenals on both sides. But considerably less attention has been paid to the possible implications of lower nuclear numbers on other regions of the world and the reactions of both adversaries and US allies. If nuclear reductions are to be stabilizing and beneficial to security, reassurance and strengthened nonproliferation efforts in various regions need to accompany nuclear cuts. But the specific problems and remedies across regions vary. This article summarizes the results of a multi-author study. It concludes that regions with US allies and formal extended deterrence pledges may pose more vexing problems than those areas of the world without such close allies or commitments.

KEYWORDS: Nuclear disarmament; strategic stability; United States; Russia; China; South Asia; Europe; NATO

In 2009, President Barack Obama gave a speech in Prague in which he outlined a course toward achieving a world free of nuclear weapons, consistent with US commitments under Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons.¹ The 2010 Nuclear Posture Review (NPR) reiterated this commitment but emphasized the “very demanding” conditions for getting to zero.² The NPR noted that a significant portion of the problem stems from existing regional conflicts. Recognizing these current conditions, the NPR stated that the United States has to focus on “maintaining a credible nuclear deterrent and reinforcing regional security architectures with missile defenses and other conventional military capabilities.”³ Notably, recent nuclear developments by North Korea have resulted in requests by South Korea and Japan for consultations with Washington about extended deterrence, seeking a confirmation of US nuclear commitments. Similarly, many members of the North Atlantic Treaty Organization (NATO) remain uncomfortable with the notion of removing existing US tactical nuclear weapons from European soil. Thus, while the rhetoric of “zero nuclear weapons” is appealing at a global level, considerably more work needs to be done at the regional level to build the groundwork for such conditions. As the NPR noted of this challenge, “But we can—and must—work actively to create those conditions.”⁴ With this directive in mind, an important requirement is learning more

about regional nuclear and security dynamics and developing strategies to deal with them. Unfortunately, in the current literature, there is a troubling gap in regard to the regional implications of moving to low nuclear numbers.

Cold War beliefs on nuclear stability typically raised doubts about the desirability of moving to low numbers of nuclear weapons. As Lawrence Freedman of King's College London explains: "The concept of mutual assured destruction did not indicate any value in reductions of offensive weapons. If anything, excessive reductions could be destabilizing if they went past the point where destruction could no longer be assured."⁵

Since the end of the Cold War, there have been a number of efforts to revive consideration of minimum deterrence postures and, eventually, move toward the complete elimination of nuclear weapons. This effort has been joined by some significant figures from the Cold War US nuclear establishment, including Henry Kissinger, William Perry, George Schultz, Fred Iklé, and others. But recent arguments have tended to focus on relatively simplistic lessons about deterrence drawn from the early days of nuclear weapons. Existing studies of the question of low numbers have similarly tended to focus on strategic relations between the United States and Russia only, to the neglect of other nuclear states. A number of experts have asserted, largely using a deductive approach, that lower numbers—even as low as 311 deployed US nuclear weapons—can be achieved relatively painlessly and with few effects on deterrence or strategic stability.⁶ As US Air Force scholars have argued about the thousands of nuclear weapons deployed during the Cold War: "the actual marginal utility of additional forces was quite small."⁷ In support of their arguments, these and other advocates of lower numbers point to the work of such early theorists as Bernard Brodie and Arnold Wolfers in the 1940s, who believed nuclear security could be accomplished with very small arsenals because of the tremendous destructive power of nuclear weapons.⁸ However, these older studies were written under the expectation of conditions of nuclear bipolarity and came well before the level of even 1,000 nuclear weapons had been reached. Today, while US-Russian tensions have decreased dramatically, gradual proliferation has increased the number of nuclear states and the world political structure is characterized by more complex multipolar dynamics.

Given the passage of time, many US allies have grown accustomed to extended deterrence at high levels of nuclear armaments, meaning that trade-offs in allotting weapons to the allied mission hardly existed in the past and counterforce scenarios seemed highly credible. Despite this context, the recent literature on low numbers has failed almost entirely to address security perceptions among US allies or views of nuclear weapons in regions that are rife with tensions, where nuclear weapons are seen as *beneficial* to security and even stability. One recent and much-publicized study by the Carnegie Endowment's James Acton, for example, makes the case that prospects for deterrence at low numbers (which he defines as 500 nuclear weapons) are "generally good."⁹ But Acton's focus is technical and his logic is largely deductive. Thus, while he might be right about the narrow US-Russian context, his study is of limited value in considering the rest of the world. As for the regional context, Acton assumes that China, India, Pakistan, the United Kingdom, France, and North Korea need not be considered since their arsenals are still well below his 500 weapon limit. He also chooses to make "black box" assumptions about politics in key allied countries. This leads him to predict

their automatic acceptance of US extended deterrence pledges at lower levels of weapons and conditions of continued regional stability. Unfortunately, even with the United States moving to numbers dictated by the New Strategic Arms Reduction Treaty (New START) of 1,550 deployed weapons, regional allies have already voiced their concerns. As a study led by Global Zero founder Bruce Blair in support of lower US-Russian numbers and on the value of de-alerting admits: “The bi-polar nuclear balance analyzed in this study will have to be broadened into a multi-polar balance, the stability of which at very low numbers remains an open question.”¹⁰ Indeed, another study by the Royal United Services Institute in England makes the case that, despite past restraint in nuclear numbers by smaller nuclear states, continued moves downward in the context of deeper reductions by the United States and Russia “cannot be taken for granted.”¹¹

The issue of how states allied with the United States might react politically or militarily to US nuclear reductions has not been considered adequately. For this reason, we must view such deductive studies as “best-case” scenarios. Other recent articles have made deductive arguments in the worst-case direction. *Wall Street Journal* columnist Bret Stephens argues that the real choice facing the United States is “between a world of fewer U.S. nuclear weapons and more nuclear states, or the opposite.”¹² He concludes, “In his idealism, the president is setting the stage for a more nuclearized world.”¹³ But this may not be true either. Instead, we need to deal with *actual* conditions in various regions and the specific national perspectives that will affect the speed and success of US and other states’ nuclear reductions as well as regional proliferation tendencies.

Drawing on a team of senior experts on regional nuclear affairs, this project—supported by funding from the Defense Threat Reduction Agency—sought to dig much deeper into the potential problems of low nuclear numbers, on a region-by-region basis, and to develop possible solutions. It did so not only by focusing on regional politics, alliance stability, and regional security writ large, but also by considering the impact of larger planned reductions than New START levels of 1,550 weapons. Clearly, if the United States is considering moving to zero, understanding the possible implications of getting to 1,000 weapons and lower is necessary.

This project sought to outline possible problems down the road in various regions and possible means of addressing them *before* they become unsolvable obstacles that could lead to future nuclear proliferation, strategic instability, or even conflict. Some of the findings of the project include the following general points:

- **Beliefs** about nuclear weapons in various states and within various regions matter.
- **Perceptions** about the US commitment to provide security to allies and the continuity and credibility of these pledges may matter more than the specific number of nuclear weapons.
- **The process** of nuclear reductions will matter in how successful or unsuccessful it is, requiring advance notice and close consultations with both allies and adversaries.
- **Reassurance** may be a more important driver of nuclear requirements than deterrence, because it is easier to convince an adversary that you will fire back if

attacked than it is to convince an ally that you will come to his defense in a situation where you have not been attacked.

Despite these general observations, the most notable finding of this research is that the implications of US reductions in nuclear numbers are *not* uniform across regions. Instead, due to differences in history, the structure of alliances, the nature of security assurances, and assumptions about nuclear weapons themselves, the problems that might be created are likely to be unique to each part of the world and the possible responses to them also will need to be tailored to the specific characteristics and requirements of each region. This point highlights the importance of what we might call “differentiated” nuclear reassurance and deterrence, where strategies may need to vary across regions and indeed be tailored to individual countries, whether adversary or ally.

This brief overview article first provides a summary of some of the main findings in the four regions studied: Europe, the Middle East, South Asia, and East Asia. It shows how some of the most sensitive details of US nuclear reductions may involve allies, not adversaries. It also argues that new mechanisms may need to be put into place to provide non-nuclear forms of reassurance prior to moving forward with further cuts. At the same time, it argues that signaling to potential adversaries and to prospective partners in moving to very low numbers will be critical if such efforts are indeed possible. The point here is that nuclear reductions are indeed about improving security, not lower numbers for their own sake. Absent new mechanisms for overcoming problems and for providing that security, states are surely not going to be willing to reduce or eliminate their arsenals, regardless of what the United States does. The article concludes with a set of policy recommendations, as well as thoughts on some possible directions for further research.

Europe and Russia

Europe is often considered to be the most stable region in the world from a nuclear weapons perspective. The legacy of apparently successful Cold War nuclear deterrence, the post-Cold War US-Soviet political rapprochement, the vast drawdown in the US and Russian arsenals, the removal of intermediate-range nuclear forces, and cuts in both UK and French nuclear forces all seem to predict relative ease in moving to lower numbers. But certain factors in NATO Europe and in Russia pose possible problems for stability at lower numbers.

In his contribution to this special section, David Yost of the Naval Postgraduate School (NPS) points out that European states are used to the protection provided by the US nuclear guarantee.¹⁴ While some states in Europe no longer advocate maintaining nuclear weapons on the European continent, he says that most countries would be uncomfortable if this nuclear guarantee were withdrawn altogether, or, in some cases, even challenged at all through reductions.¹⁵ This is especially true in new NATO states adjacent to Russia. Many of these countries in Central Europe and the Baltics were once part of the Warsaw Treaty Organization and unwillingly had to station Soviet troops and nuclear weapons on their soil.

Moreover, Yost points out that factors outside Europe—such as arms build-ups in South Asia or by China—could put Europe at greater risk, thus making low numbers destabilizing.¹⁶ Similarly, he sees concerns among Europeans that low numbers will encourage countervalue (and, specifically, anti-cities) strategies that could make US extended deterrence in Europe less credible.¹⁷ (Specifically, if the only US option for retaliation against Russian nuclear use in Europe is the massive slaughter of Russian civilians, Washington might be unwilling to respond—or be seen by Moscow as unwilling to respond—thus making deterrence ineffective.)

At the same time, Nikolai Sokov of the James Martin Center for Nonproliferation Studies questions Russian willingness to proceed further down the path to lower numbers. For Russia, nuclear weapons have taken on the role of an “equalizer” since the loss of its Eastern European buffer in 1989 and following the major cuts in its conventional forces since 1991.¹⁸ US missile defense is yet another reason why Russia is not likely to support moves to strategic nuclear numbers below 1,000, he says. Russian concerns with China’s rise and the security risks it poses to the sparsely populated Russian Far East are another constraint for Moscow.¹⁹ This creates a two-level game where cooperation in nuclear reductions with the United States may put Russia at a disadvantage in its strategic relations with China. Finally, Sokov argues that Russia is unlikely to support strict verification deemed by the United States as necessary at low numbers due to self-perceived doubts about its conventional weapons capabilities.²⁰

All of these points suggest that, contrary to popular expectation, Europe may be as much—if not more—of a problem for US efforts to reduce nuclear numbers than other regions of the world.

Middle East

Common wisdom regarding the Middle East today is that it is perhaps the region most likely to experience instability and new cases of nuclear proliferation over the next two to three decades, with Iran as the leading candidate. Given hostile Israeli-Iranian relations and pressures on the Gulf states to respond with nuclear weapons programs of their own, it might therefore be assumed that lower US nuclear numbers could lead to further panic among US friends and allies. Yet although the United States fought two major wars against Iraq in 1991 and 2003 and has been involved in hostilities on several other occasions (including in Libya in 2011), nuclear weapons have not been part of the equation, or at least been very much in the background. As NPS professor James Russell argues in this issue, the United States has not made explicit extended nuclear deterrence commitments in the region, even as it has provided significant security pledges, sold major armaments, and constructed US bases.²¹ For these reasons, Russell argues that strategic nuclear forces are not central to the US presence and that cuts in the US arsenal will not demonstrably affect the region.²² While critics point to the threat of a destabilized Middle East if Iran acquires nuclear weapons, Russell argues that Israel’s nuclear deterrent, combined with US missile defenses and conventional forces, will likely be able to maintain the balance of forces without requiring the introduction of a US nuclear commitment.²³

Thus, contrary to common expectations, the Middle East may be relatively indifferent to lower US nuclear numbers.

South Asia

South Asia is another region where fears of nuclear stability are widespread, particularly among outside observers. US and Russian reductions, theoretically, could lead to a heightened sense of abandonment in both India and Pakistan, possibly stimulating further vertical proliferation. But S. Paul Kapur of NPS argues that the lack of specific US (or Russian) nuclear or defense commitments in the region means that South Asia may not likely be greatly affected by nuclear cuts.²⁴ Indeed, Kapur argues that because neither Pakistan nor India fear the United States as a nuclear rival, US reductions are likely to have little impact on the region, particularly compared to the status of either's nuclear forces pitted against the other or, for India, the level of Chinese forces.²⁵ Given the recent US-Indian rapprochement, Kapur sees the possibility of US reductions as possibly weakening some form of informal extended deterrence, but that these effects will be marginal.²⁶ Only US and Russian moves to very low numbers might eventually put pressure on India and Pakistan to join the process of nuclear reductions.²⁷ But Pakistan's view of the centrality of its nuclear arsenal for its survival in the face of an economically and militarily more powerful India make such trends unlikely, unless broader changes in global security were to occur, which are currently unforeseeable.

Thus, the expected outcome is neither positive nor especially negative. But the South Asian situation demonstrates the challenges to the global viability of nuclear cuts.

East Asia

The dominant emphasis of East Asian countries over the past several decades has been on economic development and trade. But China's rise and North Korea's nuclear and missile programs and recent bellicose behavior have created significant unease among US allies in the region, making the prospect of lower nuclear forces less welcome than in other parts of the world. East Asian countries are uncertain about Pyongyang's possible motivations and seek to avoid possible coercion from a China that is both economically and militarily far more powerful than it was at any point in the twentieth century. For these reasons, there is likely to be a significant need in this region to reassure US allies of the credibility of its commitments and the continued viability of US extended deterrence, particularly since the withdrawal of US nuclear forces from South Korea in 1991.

NPS senior lecturer Wade Huntley's contribution to this special section notes how both major US allies in the region requested bilateral discussions on extended deterrence after the 2010 NPR and have since eagerly engaged US officials on the topic of nuclear security.²⁸ Despite these efforts, two-thirds of South Koreans believe that their country should acquire nuclear weapons, something the United States does not support and would certainly find destabilizing and counter to its intentions to pursue further nuclear reductions.²⁹ Japanese public opinion is less openly supportive of nuclear weapons, but

officials there have repeatedly voiced concern over the importance of the US nuclear commitment to its security. Huntley concludes that possible negative implications of US nuclear reductions can be managed, but that “fulsome and effective consultations” with both allies, renewed reassurance of the US presence in the region, and firm reiteration of its extended nuclear deterrence guarantees will need to be part of the process.

In regard to China, critics of the Obama administration have suggested that nuclear reductions could lead Beijing into grasping the opportunity for a “sprint to parity.”³⁰ But China’s perception of its security may be less influenced by the number of US nuclear weapons than by the impact of Russian and Indian nuclear weapons, as well as the array and posture of the conventional forces that surround it, which include US and allied missile defenses. As NPS professor Chris Twomey points out in this special section, China is comfortable living with low numbers of nuclear weapons and has made a limited nuclear arsenal central to its deterrent posture since the mid-1960s.³¹ At the same time, he argues that US motivations to reduce nuclear numbers are viewed with suspicion by China, which sees the United States as pursuing compensatory advantages in space, conventional precision weapons, and missile defense. Twomey suggests that if the United States wants to do more to ensure Chinese restraint in response to US nuclear reductions, it might need to consider new signaling policies, such as adopting a pledge on the no-first-use of nuclear weapons, a long-held Chinese goal.³² Additionally, US pledges to accept certain limits of scale or type in the area of missile defense—such as perhaps refraining from placing missile defenses in space—or offering reassurance regarding US reactions to Chinese missile defense efforts might help elicit more receptive Chinese nuclear behavior and help convince China that the United States is not seeking to acquire a first strike advantage (as Chinese critics charge).

But China remains concerned, according to Twomey, about the implications of extended nuclear deterrence pledges that may embolden Japan in its territorial disputes with China, a major issue for Beijing.³³ Instability related to conflicting territorial claims could also fuel pressures for regional arms racing, which could drag in the United States. For these reasons, continued dialogue with China on nuclear security issues will likely be necessary. US commitments to limit other systems, according to sources cited by Twomey, may be necessary if it seeks to bring China into actual nuclear reductions at some point in the future.³⁴ But he remains pessimistic regarding near-term prospects.

Conclusion

The purpose of moving to lower nuclear numbers is ultimately about increasing US and global security. For this reason, implementing such reductions needs to be a carefully thought-out process. The United States, as the world’s most powerful state, has both the most to lose if this effort goes wrong and potentially the most to gain if it can be carried out in a manner that puts all states on a path toward cooperative security, nonproliferation, and reduced nuclear tensions. Unfortunately, as the articles in this special section demonstrate, there is still much work to be done in various regions of the world to ensure

such success. In terms of priorities for US policy, several suggestions flow from this research:

- Consultations with allies are critical and will need to involve adjustments in security relations to include stronger elements of reassurance through joint training and discussion of crisis management, including nuclear crises.
- Discussions with Russia as the main potential partner in ensuring cooperative movement below 1,000 weapons are needed to address Russian concerns (if possible) and to begin engagement with China, a major concern for both Washington and Moscow.
- US adoption of new reassurance mechanisms might be useful to counter Chinese claims that lower numbers are being pursued in order to increase US unilateral advantages. These mechanisms might include US ratification of the Comprehensive Nuclear-Test-Ban Treaty (CTBT), a no-first-use pledge regarding nuclear weapons, and efforts to engage China in cooperative monitoring and verification of lower nuclear numbers to enhance crisis prevention and—if one occurs—crisis management.
- Regional security initiatives involving the permanent five members of the UN Security Council and other relevant parties might be useful to address shared security concerns in the Middle East, South Asia, and East Asia. These discussions could focus on confidence building, threat reduction, and mutual non-aggression pacts, while beginning to address underlying security problems whose solutions are likely to be prerequisites to moving lower nuclear numbers.

This project on the regional implications of US moves to lower nuclear numbers has been but a first step into a field that requires more research. With this in mind, it is worth setting out some possibly fruitful directions for follow-on studies. First, more work is needed on regions outside the focus of this study. While the main emphasis of this research was on regions with either close US allies or with other nuclear weapon states, African and Latin American countries could conceivably have different reactions to changes in the nuclear balance. Studies of these regions would be useful to supplement the findings of this project. Second, more work is needed on how to construct the new allied and other international reassurance mechanisms called for by this research. None of this will be easy. Governments will need to get used to closer consultations on nuclear matters and with military-to-military dialogues on crisis prevention, possibly even including cooperative US-Russian and US-Chinese nuclear exercises. Third, the area of verification—particularly cooperative verification—is an under-studied issue. While a variety of new technologies can now be applied to this problem, sharing sensitive nuclear information is likely to be difficult and may require new consultative bodies and unique technical protocols. Recent experience with the Preparatory Commission for the CTBT Organization or the International Atomic Energy Agency may provide some useful guidelines. But verifying low numbers is likely to pose unique challenges, which will likely require more intrusive forms of verification and cooperation, including in early warning, typically a highly sensitive area. Fourth, and finally, more research will be required on how to deal with outliers. At lower nuclear numbers, relative disparities between nuclear

arsenals may be viewed as destabilizing, particularly given the potential for breakout. Moreover, if certain countries fail to join the process, collective persuasion and/or sanctions may be necessary, if the process of reductions is to continue at all. These are challenges that the current nonproliferation regime faces, but they are likely to become even more important once major powers lose the still substantial nuclear hedge that they currently possess.

Overall, these various cautions and concerns need not derail movement toward lower nuclear numbers. The important message from this research is that getting the details right and tailoring them to the specific security requirements of individual regions is going to be a necessary part of the success of any such process. Again, the risks of failure—even in an era when the US-Russian relationship is much more amicable—are substantial. Progress will likely be slow. But doing the political and military spadework to develop new security and reassurance mechanisms should provide additional benefits in terms of helping to foster general conditions for improved nuclear communication, stability, and conflict prevention.

DISCLAIMER

The views expressed in this article are solely those of the author and do not represent those of the US Naval Postgraduate School, the Department of the Navy, or the Department of Defense.

NOTES

1. Barack Obama, "Remarks by President Barack Obama," Prague, April 5, 2009, <www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered/>.
2. US Department of Defense, "Nuclear Posture Review Report," April 6, 2010, p. xv.
3. *Ibid.*, p. 7.
4. *Ibid.*, p. xv.
5. Lawrence Freedman, *The Evolution of Nuclear Strategy* (Palgrave MacMillan: New York, 2003), p. 339.
6. See, for instance, James Wood Forsyth, Jr., B. Chance Saltzman, and Gary Schaub, Jr., "Remembrance of Things Past: The Enduring Value of Nuclear Weapons," *Strategic Studies Quarterly* 4 (Spring 2010), pp. 74–89.
7. *Ibid.*, p. 82.
8. See, for example, Brodie's and Wolfers's contributions in Bernard Brodie, ed., *The Absolute Weapon: Atomic Order and World Power* (New York: Harcourt, Brace, and Company, 1946).
9. James Acton, *Deterrence During Disarmament: Deep Nuclear Reductions and International Security* (Adelphi Series 50, No. 417, March 2011), p. 94.
10. Bruce Blair, Victor Esin, Matthew MacKinzie, Valery Yarynich, and Pavel Zolotarev, "One Hundred Nuclear Wars: Stable Deterrence Between the United States and Russia at Reduced Nuclear Force Levels Off Alert in the Presence of Limited Missile Defenses," *Science and Global Security* 19 (October 2011), p. 186.
11. Malcolm Chalmers, Andrew Sommerville, and Andrea Berger, eds., "Small Nuclear Forces: Five Perspectives," *Whitehall Reports*, No. 3–11, December 2011, Royal United Services Institute, London, United Kingdom, p. 9.
12. Bret Stephens, "Obama's Nuclear Fantasy," *Wall Street Journal*, February 12, 2013, p. A13.
13. *Ibid.*

14. See David S. Yost article in this issue, "Strategic Stability in Europe: Risks with Low Numbers of US and Russian Nuclear Weapons."
15. Ibid.
16. Ibid.
17. Ibid.
18. See Nikolai Sokov article in this issue, "Assessing Russian Attitudes Toward Deep Nuclear Reductions: Strategic and Regional Concerns."
19. Ibid.
20. Ibid.
21. See James A. Russell article in this issue, "Nuclear Reductions and Middle East Stability: Assessing the Impact of a Smaller US Nuclear Arsenal."
22. Ibid.
23. Ibid.
24. See S. Paul Kapur article in this issue, "The Effects on South Asia of Deep US Nuclear Reductions."
25. Ibid.
26. Ibid.
27. Ibid.
28. See Wade L. Huntley article in this issue, "Speed Bump on the Road to Global Zero: US Nuclear Reductions and Extended Deterrence in East Asia."
29. "2/3 of S. Koreans Support Nuclear Armament," *Chosun Ilbo*, English edition, February 21, 2013, <http://english.chosun.com/site/data/html_dir/2013/02/21/2013022100645.html>.
30. The phrase "sprint to parity," as a hypothetical future option for China, is usually attributed to Donald H. Rumsfeld, then-secretary of defense, who said in 2002 that "a country could decide that they would like to try to sprint toward parity or superiority in nuclear capabilities." Testimony in Treaty on Strategic Offensive Reduction: The Moscow Treaty, Hearings before the Committee on Foreign Relations, United States Senate, 107th Cong., 2nd Sess., July 9, 17, 23, and September 12, 2002 (Washington, DC: US Government Printing Office, 2002), p. 99.
31. See Twomey article in this issue, "Nuclear Stability at Low Numbers: The Perspective from Beijing."
32. Ibid.
33. Ibid.
34. Ibid.