

analysts worry that the potential costs of SLCMs to arms control outweigh their contributions to deterrence and advise that the U.S. should not take the lead in deploying modern SLCMs unless an agreement imposing verifiable constraints on them and their modes of deployment is achieved.<sup>84</sup> Although SLCMs are now under the negotiation of Strategic Arms Reduction Talks (START) in Geneva,<sup>85</sup> U.S. deployments of Tomahawk SLCMs have already invited Soviet countermeasures in the form of a comparable SLCM, the SS-NX-21s and SS-NX-24s, thereby further deepening the nuclear color of the Western Pacific.<sup>86</sup>

As illuminated by the U.S.-Soviet INF Treaty, any nuclear arms control measures for the East Asia-Western Pacific region must be worked out in a global context. Nuclear arms control talks for this region alone, if held at all, would face problems quite different from negotiations in Europe. The absence of clear East-West lines of demarcation in East Asia, with the exception of the face-off at the thirty-eighth parallel on the Korean Peninsula, would make it difficult to assess what might constitute a balanced reduction of arms. How should China's nuclear arms be treated, given its emphasis on an independent nuclear policy? And since most U.S. nuclear forces in this region are sea-based and mobile, regional arms control talks would be difficult to conceptualize in order to pursue balanced and equal limits.

#### **JAPAN'S POSSESSION OF STRATEGIC NUCLEAR FORCES**

Although a small minority, the third school goes so far as to argue for Japan's possession of strategic nuclear forces. Two

lines of argument are found in this group. One faction, represented by spokesmen such as Ikutaro Shimizu, supports developing indigenous nuclear forces and an independent nuclear strategy.<sup>87</sup> The other group, represented by Professor Nakagawa of Tsukuba University, contends that Japan should buy U.S. strategic nuclear forces such as MX ICBMs and Trident SSBNs and SLBMs with their warheads and deploy these forces with "Japanese fingers" on the controls for the purpose of practicing "coalition strategy" with the United States.<sup>88</sup>

The fundamental rationale for their arguments resides in the wide ranging perception that current U.S.-Soviet mutual deterrence, characterized as MAD, poses serious difficulties for the U.S. in carrying out its extended nuclear deterrence mission.<sup>89</sup> In fact, ever since the U.S.S.R. acquired the ability to inflict unacceptable retaliatory damage on the U.S. homeland, the credibility of the U.S. commitment to use nuclear weapons and willingness to escalate to the strategic level in support of defense to allies has been questioned. It is not surprising that no rational U.S. president could deliberately take such a course of action, if it would result in wide spread destruction of the American homeland. This general feeling of insecurity has been very strong among those who belonged to the third school, who regard overall U.S.-Japan ties as weaker than those of U.S.-West European relations. From one defense specialist's point of view, U.S.-Japan relations are, so to speak, a "gesellschaft" company, whereas U.S.-West European relations are a kind of "gemeinschaft" entity.<sup>90</sup> For this reason, it is feared that the Soviets might

consider the U.S. nuclear commitment to Japan less plausible than that to Western Europe.

Their concerns are furthered by an unbridged gap in damage-limiting capability between the U.S. and the Soviet Union, which is indispensable for carrying out a deliberate or rational nuclear response. The principal components of that capability are 1) prompt hard-target kill weapons including ICBMs, Trident SLBMs with D-5 warheads that are planned to be included in the U.S. inventory in the late 1980s, and advanced intermediate-range ballistic missiles like the Pershing II, 2) active defense weapons such as ABMs, surface to air missiles, and interceptors, and 3) passive defense measures such as hardening and civil defense. U.S. time-urgent hard-target kill potential, the only reliable damage-limiting capability in the U.S. today, the bulk of which is maintained in ICBMs, is reported to be inferior to that of the Soviet Union, as illustrated vividly by the debate over the ICBMs' survivability.<sup>91</sup> The American strategic defense capabilities, in both active and passive (except for hardening) fields, in contrast to those of the Soviet Union, have been less significant and have been centered primarily on surveillance, warning, and limited air defense,<sup>92</sup> although since 1983 the U.S. has begun research to determine the technical feasibility of multi-layered BMD systems under the name of SDI.

Professor Nakagawa notes the implications of this imbalance between the U.S. and the Soviet Union in damage-limiting capability:

In the 1980s, U.S. counterforce capabilities, the core of which is time-urgent hard-target kill capability, have been and will continue to be strengthened considerably. But this reinforcement will stop short of gaining superiority vis-a-vis the Soviet counterforce capability. The same will be true of defensive capability. This being the case, in the remainder of the 1980s, U.S. nuclear deterrent power will be effective only for the U.S. homeland alone, and U.S. extended nuclear deterrence will remain at lower credibility.<sup>93</sup>

Having argued this, Nakagawa proposes that Japan acquire strategic nuclear forces in order to supplement the U.S. strategic deterrent. From his point of view, such a coordinated strategy is not only necessary for buttressing nuclear deterrence vis-a-vis the Soviet Union, but is also morally advisable. This, he argues, is because the American citizenry will be relieved from an unnecessary fear of Soviet nuclear attack which has been imposed on them by a U.S. nuclear commitment to Japan.<sup>94</sup>

This line of argument is based on Nakagawa's belief that strategic forces that can carry out retaliatory strikes on major Soviet cities including Moscow would give Japan a sort of deterrence against the Soviet Union. This is because, according to him, destruction tolerable to a superpower like the U.S.S.R. might be reduced by the lower value acquired by destroying a small country like Japan.<sup>95</sup>

#### **Political and Strategic Feasibility of Japan's Strategic Nuclear Forces**

Any policy which includes the possession by Japan of strategic forces, either through a purchase of U.S. manufactured strategic nuclear forces or through domestic development, is not

only close to impossible for domestic reasons but also is unacceptable for international political reasons.

Considering the strong and long-standing U.S. commitment to a nuclear non-proliferation policy, it is unrealistic to think that Japan can buy a set of strategic force systems from the United States. Selling nuclear weapons, or more accurately, explosive devices per se to a non-nuclear weapons country, or a non-nuclear country's attempt to acquire nuclear weapons constitutes a clear violation of Articles I and II of the NPT, the principal juridical framework of the world-wide nonproliferation regime, and the 1978 Nuclear Non-proliferation Act of the United States.<sup>96</sup> The NPT was formulated and has been maintained by strong American leadership, and the nuclear non-proliferation policy has received top priority in U.S. foreign policy.<sup>97</sup> In view of this, planning for a U.S. violation of the NPT of its own accord is simply unthinkable. Even without the NPT, the U.S. probably would not sell its nuclear weapons to any non-nuclear ally, primarily because any increase in nuclear fingers adds the risk of nuclear war that will involve the entire arm. A possible U.S.-British deal in American Trident submarines and their SLBMs does not provide Japan with any guidance on this point. The United Kingdom is not trying to buy explosive devices, but rather delivery vehicles.<sup>98</sup> Further, the United Kingdom, in contrast to Japan, has a unique and historic relationship with the United States.

The development of indigenous Japanese nuclear forces would face comparably insurmountable problems. First, Japan's decision to go nuclear would result in tarnished relations with the United

States. For one thing, such a course would be in direct conflict with the longstanding U.S. non-proliferation policy. For another, since Japan's decision to acquire indigenous nuclear forces would be caused primarily by deterioration of overall U.S.-Japan relations and consequent distrust on the part of Japan of the U.S. nuclear umbrella, U.S.-Japanese relations in such a circumstance would not allow the current degree of close relationship. Keeping Japan from going nuclear is one of the principal elements that encourages the U.S. to guarantee the nuclear security of Japan. Thus Japan's decision to develop its own strategic nuclear forces would erode the foundation of the U.S.-Japan Mutual Security Treaty. Deterioration of U.S.-Japan relations does not ensure Japanese economy's free access to the enormous U.S. market, which might cause serious difficulties to the inherently vulnerable Japanese economy.<sup>99</sup>

Second, for a country like Japan that in the recent past launched aggression against its neighboring countries, a nuclear weapons program would invite misunderstanding regardless of its intention and lead Japan to international isolation. Such a status would almost surely jeopardize Japan's military security, to say nothing of its economic security.

Third, the NPT regime has been steadily strengthened, and withdrawal from it would bring about negative political repercussions on Japan. When the NPT was opened for signature on July 1, 1968, sixty-two countries signed it on that date.<sup>100</sup> Since then, the number of signatories has gradually increased and as of September 1987, 134 nations are members of the NPT.<sup>101</sup> As

a result, the international norm of non-proliferation has been buttressed and it has become politically more difficult for a country to set out on the path to acquire nuclear weapons.

Fourth, Japan suffers from a lack of natural resources requisite for nuclear weapons production. A Japanese decision to use imported uranium for nuclear weapons production would immediately invite an embargo by traditional suppliers in view of the International Atomic Energy Agency's safeguard arrangements and "full-scope" safeguards advanced by the major suppliers including the United States.<sup>102</sup> Moreover, any halt of such raw materials imports would paralyze Japan's peaceful application of nuclear power and energy production in particular. To illustrate this, as of 1985 26 percent of Japan's total electricity is already generated by nuclear power and this percentage is planned to reach 39 percent by 2000.<sup>103</sup>

Also there are precious few positive strategic prospects for Japan's possession of strategic nuclear forces. Granted that Japan has accumulated and maintains technological skills applicable to the construction of modest nuclear forces, this capacity does not justify Japan's nuclearization. This is simply because the technology of destroying nuclear weapons has also advanced and will advance—techniques for attacking and destroying fixed targets, for locating concealed mobile targets and for attacking bombers and even missiles while on their way to targets.

Land-based ICBMs are a good example for examining vulnerability. It might appear that Japan can find their basing sites on some small islands scattered around the four main

islands. However, considering the laborious American experiences of seeking a survivable MX basing mode<sup>104</sup> it is dubious whether, in the limited space of those small islands, Japan could find and construct ICBM sites that satisfy the requirements of survivability.

Japanese bomber forces, if constructed, will continue to face the problem of lack of defense depth against attack from the northwest due to the short distance from the likely launching areas of the Soviet Far East and difficulties in penetrating the ever-improving Soviet air defenses. More fundamentally, Japan's technology for the building of advanced aircraft is far behind and this state of affairs would oblige that country to spend years building adequate bombers capable of overwhelming Soviet air defenses.

A sizable number of SLBMs might, by holding Moscow and several large cities hostage, seem to provide Japan with a minimum deterrent power. However, the inherent problem of maintaining reliable communications to these submerged forces must be solved. In the case of Japan, the communications problem would be even more severe if the SLEM forces had to be deployed in the Arabian Sea or waters close to the European part of the Soviet Union. More important, there is no guarantee that a minimum deterrent strategy based on submarine forces alone would continue to be effective in view of the growing counterforce capabilities (e.g., anti-submarine warfare capability), even though SLBMs are at present the most survivable weapons systems. Moreover, if a minimum deterrence were to fail, it would then not be rational to

use such a minimum force in retaliation against Soviet cities, since this would only stimulate the Soviet Union to inflict further damage on Japan. Given Japan's inherent vulnerability to nuclear attack in terms of demographic distributions, geography, and enormous lag on the learning and development curve of nuclear-capable submarines, it is very doubtful that Japan could build and maintain SLBM forces sufficient to practice effective deterrence against the Soviet Union with formidable nuclear capabilities.

In sum, political and strategic considerations do not allow Japan to possess strategic nuclear forces, be they bought, borrowed, or homemade.<sup>105</sup>

#### **Extended Nuclear Deterrence under MAD**

As to the third school's alarm that the current U.S.-Soviet nuclear stalemate, characterized as MAD, poses serious difficulties in U.S. extended nuclear deterrence policy, this caution is not incomprehensible. It is true that no one knows if the United States, by risking the disastrous destruction of its own country, would respond to a Soviet nuclear threat or attack against major U.S. allies.

However, we can also argue the opposite view that no one knows the U.S. would not respond to such a threat. The very anxiety over whether the U.S. would be prepared to risk its own country for the sake of preventing a Soviet nuclear strike on its major allies is beside the point, because the U.S.S.R. cannot quite be certain about the answer. In the late 1960s, British

Defense Secretary Denis Healey explained this theorem succinctly as applied to the U.S.-West European case: it does not matter whether the West Europeans are ninety percent certain that the U.S. will uphold its nuclear guarantee: what matters is whether the Soviet Union is 10 percent uncertain that the U.S. might.<sup>106</sup> Despite steady reinforcement of Soviet strategic nuclear forces, this uncertainty remains, and provides the basis of U.S. extended nuclear deterrence for Western Europe and Northeast Asia.

Furthermore, a brief review of recent history shows that the third school's concern has continued to remain a theoretical one and no event that would justify this fear has occurred. It has been about twenty years since strategic arms parity based on MAD was established between the U.S. and the Soviet Union.<sup>107</sup> Nevertheless, the U.S. nuclear umbrella under the tenure of MAD has apparently been working. We have to remember that there has been no war or armed conflict between the major U.S. allies and the Soviet Union, to say nothing of a direct U.S.-Soviet armed conflict. This seems to indicate that not only the U.S. but also the Soviet Union has consciously avoided even a small risk that would carry the danger of an escalation to a nuclear exchange. This mutual self-restraint is traceable to the unknown processes of nuclear exchange, or uncontrollability of nuclear war, and the possible catastrophic destruction that will be brought about by such uncontrollability.

In sum, as long as the Soviet Union continues to be uncertain about a U.S. response to Soviet nuclear attack against U.S.

allies, even in the condition of mutual vulnerability, U.S. extended nuclear deterrence remains workable. MAD is not a policy of any sort, but is a fact of life. This hard fact cannot be removed easily in the foreseeable future. Thus, efforts should be made to increase Soviet uncertainty over whether the U.S. would risk nuclear escalation on behalf of its allies. We will discuss this issue in the conclusion.

#### **Powerful Prompt Counterforce Capability and Extended Nuclear Deterrence**

It is necessary to caution against the third school's contention that a powerful counterforce capability is indispensable for credible extended nuclear deterrence. As noted before, counterforce potential, specifically for a prompt hard-target kill, is at present the most reliable damage-limiting capability. Some form of damage-limiting capability, on the other hand, is a prerequisite for a deliberate nuclear response. In this sense, as Nakagawa notes, time-urgent hard target kill capability has important implications for extended nuclear deterrence.

However, unrestrained improvements in prompt hard-target kill potential, which could be misunderstood as a move toward acquiring a disarming first strike capability, have a harmful influence on crisis stability and would give rise to a severe arms race. Unlimited strengthening of this capability gradually erodes the adversary's retaliatory capability and would eventually put it at risk, thus endangering crisis stability by encouraging launch

under attack, launch on warning, or even preemption. Furthermore, should strains which appear likely to lead to war develop, even marginal advantages of a prompt counterforce capability, or striking first, could fuel the destabilization process.<sup>108</sup> In such a situation, incentives would grow for making the best of a bad situation; in other words, for taking what gains could be taken before the adversary tried to do the same. Each side would fear that the other thought the risks of striking second were difficult to bear and the advantages of striking first more persuasive. These reciprocal fears of attack might someday spark a conflagration neither side desired. This negative implication of the prompt hard target kill potential should not be taken lightly, particularly as quantitative limitations on nuclear forces are likely to be the centerpiece of U.S.-Soviet arms control.

Even if a severe political crisis which induces such attacks should not arise, a side whose retaliatory forces are made vulnerable would be obliged to accelerate its buildup of offensive forces in order to restore their retaliatory and deterrent power. Such reinforcement would likely be viewed as more than enough, since military strength comparisons are almost always based on worst-case analyses. Here an important phenomenon that brings about arms competition, namely the action reaction process, emerges.<sup>109</sup>

A recent study reveals a strong relationship between a rapid arms race and the onset of war. According to Michael D. Wallace, rapid competitive military growth is strongly associated with the

escalation of tensions or military confrontations into all-out war, although an arms race could not be considered a causal factor in an outbreak of war.<sup>110</sup> In situations where two powers were under considerable hostility and tension, if this was preceded by an arms race, as many as 23 out of 28 cases resulted in war, whereas if not preceded by an arms race, only three of 71 cases turned violent.<sup>111</sup> His findings support intuitive concerns that an intensification of the U.S.-Soviet arms race could lead to a "hairtrigger" situation in which a major crisis or confrontation would be far more likely to result in large-scale war.

Such a war inevitably raises the risk of involving nuclear weapons, specifically the use of those deployed on the sea and in forward bases. In the case of the United States, its important forward bases are within the borders of major U.S. allies, thus these allies inescapably constitute prime Soviet nuclear targets. In sum, unrestrained counterforce improvement not only endangers U.S.-Soviet crisis management and stabilization of the arms race, but also puts U.S. allies in serious danger of nuclear holocaust.

For defense analysts who regard deterrence as the result of specific force relations, the credibility problem of the U.S. nuclear shield can only be solved by regaining powerful prompt hard-target kill capability and deploying effective defense systems.<sup>112</sup> However, as discussed above, a policy to enhance the credibility and effectiveness of the U.S. nuclear umbrella by reacquiring powerful counterforce capability (for defensive measures, see the next section) is in conflict with stable U.S.-Soviet mutual deterrence and will bring about several important

side effects that will offset the values of that policy objective. Clearly the U.S. is caught between the obligation of nuclear commitment to its allies and the maintenance of a stable nuclear relationship with the Soviet Union—extended nuclear deterrence versus mutual deterrence.<sup>113</sup> But judging from the fact that the stability of overall East-West relations largely depends on a stable U.S.-Soviet nuclear balance, it seems senseless not only for the U.S. but also for its allies to push the U.S. toward a dominant counterforce capability. Any movement that brings about strategic instability will undermine the entire world system.

#### PROponents OF DISARMAMENT'S VIEWS ON EXTENDED NUCLEAR DETERRENCE

A fourth school of thought on extended nuclear deterrence is populated by advocates of disarmament, the bulk of whom are "progressive" academics and journalists with strong anti-nuclear and pacifist leanings.<sup>114</sup> In contrast to all other schools, people in this group regard nuclear weapons as an "absolute evil" since their use poses a risk of the annihilation of human beings. Thus this group calls for the total elimination of nuclear weapons from the earth.<sup>115</sup>

This group, as inferred from their attitude toward nuclear weapons, discredits both U.S.-Soviet mutual nuclear deterrence and extended deterrence as fictitious concepts and illusions. An exemplary scholar of this school, Toshiyuki Toyoda, a former professor of physics at Nagoya University, explains this thinking as follows:

The concept of mutual deterrence is nothing but a mutual balance of terror. However, as terror cannot be quantified, it is meaningless to discuss the balance. The reason why many people accept the concept of deterrence is that . . . they are influenced by a notion of military balance. . . . But since it is impossible, specifically in the nuclear age, to assess a military balance objectively, a balance of military power does not exist. Thus it is not only futile but dangerous to discuss [deterrence] on such a fabrication as the idea of military balance.<sup>116</sup>

As to extended nuclear deterrence, Professor Toyoda denies its reliability for two reasons. First he contends that the U.S. nuclear umbrella has become an illusion by referring to Article IV of the 1973 U.S.-Soviet Agreement on the Prevention of Nuclear War.<sup>117</sup> He interprets Article IV as suggesting U.S. reluctance to carry out its extended nuclear deterrence mission. Second, Professor Toyoda regards the rapid development and world-wide deployment of theater and tactical nuclear weapons as eroding the effectiveness of a nuclear shield. This, according to him, is because these weapons are essentially the instruments for carrying out limited nuclear war and for keeping the U.S. and Soviet homelands from becoming nuclear battlefields.<sup>118</sup>

For these critics, the removal of a nuclear threat can only be attained by complete disarmament. To realize this difficult objective a nuclear free zone must be created and expanded by non-nuclear weapon states including Japan. Thus Japanese citizens, the argument goes, must stand up and take action to create such a nuclear free zone around Japan by putting substance into the Three Non-nuclear Principles, thereby enabling Japan to be free from nuclear attack.<sup>119</sup>

Several counter-arguments and questions can be raised regarding this school's points. First, nuclear weapons are not an "absolute evil," but rather a "necessary evil." Their formidable destructive power can prevent other evils from occurring. The current inventory of about 50,000 nuclear warheads would cause indescribable devastation to human beings, but that does not necessarily mean nuclear weapons do not have any usefulness. Even if nothing is worth fighting a nuclear war over, it does not follow that nothing is worth the risk of nuclear war. For instance, the risk of nuclear war has prevented and could continue to prevent large-scale conventional wars that might claim tens of millions of lives. A more important problem pertaining to nuclear weapons is the question of the morality of the prevailing nuclear deterrent policy itself: whether or not it is morally acceptable to threaten a nuclear attack that might kill millions of innocent civilians even if the intention is to deter nuclear war per se. This problem, however, has been vigorously studied by concerned academicians and religious circles in the United States and a persuasive policy proposal has been presented.<sup>120</sup>

More fundamentally, although complete nuclear disarmament is a laudable policy goal that every person likes, we simply cannot eliminate nuclear weapons from the earth forever. This is because, even if all existing nuclear weapons were destroyed, the knowledge of how to build nuclear weapons cannot be buried. Some defense analysts compare the discovery of nuclear weapons to the discovery of fire and state that it cannot be undone.<sup>121</sup> Moreover, despite the wishes of those advocating complete

disarmament, the elimination of all nuclear weapons without the necessary political preconditions and mutual trust would be destabilizing and hazardous. In a non-nuclear world, a state that secretly acquires a few nuclear weapons would be able to dominate events to a much greater extent than it would in today's heavily armed world. Each country will have to continue to be anxious about such an occurrence, simply because each state is unlikely to find inspection and verification measures that would truly remove the anxiety.

Second, it is true that comparing military strength does not provide any definitive answer to us. Defense analysts maintain different assessments of the military balance and as long as nuclear peace is maintained it is virtually impossible to measure the complex balance between two nuclear arsenals with any certainty. Nevertheless this fact does not lead us to conclude that the deterrence concept is fictitious. In this nuclear age, deterrent power is not acquired or perceived by assessing an overall military balance but rather by the recognition of the existence of survivable retaliatory capacity—second strike capability. As long as the U.S. and the Soviet Union are uncertain whether one side can disarm the other by first strike, each will be deterred. And, today, far from being uncertain, the two countries seem to be almost certain that neither side can launch a disarming first blow against the other. The problem in this context is that the two countries cannot find definitive answers as to a requisite scope of second strike capability and the necessary degree of survivability of such capability that

would ensure deterrent power. These two elements are hardly evaluated objectively because of continual force modernization. Here the difficulties of maintaining consistently powerful and thus persuasive deterrent power are found.

Third, Professor Toyoda's interpretation of Article IV of the 1973 U.S.-Soviet Agreement on the Prevention of Nuclear war does not seem adequate. The essence of the Agreement is, by outlining the general conduct of both countries toward each other and toward third countries regarding the avoidance of nuclear war, to prevent the outbreak of nuclear war and military conflict that may escalate into nuclear exchange. As one concrete measure for this objective, Article IV obliges the U.S. and the U.S.S.R. to enter into consultation with each other when the two countries find themselves in a scenario leading to possible nuclear confrontation either as a result of their policies or as the result of developments elsewhere in the world. To try to prevent the outbreak of nuclear war is one thing; to be reluctant to carry out nuclear commitments is another. To endorse this understanding, Article VI of the Agreement expressly states that nothing in the Agreement shall affect formal alliance obligations.<sup>122</sup>

Fourth, U.S. theater and tactical nuclear weapons are not deployed primarily for the purpose of making the continental U.S. a "sanctuary" for nuclear war. As discussed in the exploration of the strategic meaning of U.S. INFs in Western Europe, depending on the degree of survivability of the INFs and the geo-strategic environment in which the INFs are deployed, U.S. NSNFs can have a coupling effect to the strategic deterrent. Furthermore, at

present, there is no persuasive reason for believing that nuclear war, even one that erupts at the theater level, is controllable. Thus, we cannot categorically label the American theater and tactical nuclear weapons as instruments for limiting nuclear war in a theater.

Finally, aside from the appropriateness and feasibility of creating and expanding a nuclear free zone for the attainment of complete nuclear disarmament, a nuclear free zone per se does not assure us of being free from nuclear threat or attack. There is no reliable guarantee that nuclear weapon countries would not employ nuclear weapons against a non-nuclear country. Nuclear weapons countries will employ nuclear weapons against a non-nuclear country if deemed necessary. A defense policy totally dependent on wishful thinking, blind trust, or an adversary's good will is not well-suited in the international political arena. In short, the fourth school's arguments are worthy of respect but are not fully persuasive.

#### SDI AND EXTENDED NUCLEAR DEFERENCE

Since President Reagan's announcement in March 1983, SDI seems to have undergone a remarkable transformation.<sup>123</sup> The argument is no longer that the layered nation-wide defense shield planned in SDI initially can protect the U.S. homeland perfectly.<sup>124</sup> Instead the primary argument has become that strategic defense would improve traditional deterrence: that a mixed offense-defense strategic posture, with a comprehensive

layered missile shield capable of destroying a large part of a massive missile attack, would lead to a more stable world.<sup>125</sup> The rationale of this thinking is based on the belief that an effective, albeit imperfect, total defense shield would enhance deterrence and help prevent nuclear war by significantly increasing an attacker's uncertainties regarding whether his weapons would penetrate the defense, and that the attacker would think twice, knowing that the shield would reduce or eliminate the benefits of a first strike.<sup>126</sup>

This section discusses first the impacts of a mixed offense-defense posture on U.S.-Soviet mutual deterrence. Subsequently, since the ultimate goals of SDI are 1) to replace the threat of retaliation as the basis of U.S. nuclear deterrence strategy with a new strategy based on defense and 2) to provide U.S. allies with such defenses, I will assess these policy goals to see if they are conducive to the security of the U.S. and its allies. Finally, although President Reagan rejects the concept of point defense of important military assets as SDI's goal,<sup>127</sup> examinations of the possible effects of such a defense by SDI on U.S.-Soviet mutual deterrence and the U.S. nuclear umbrella will follow.

#### **A Mixed Offense-Defense Strategic Posture**

If the U.S. deploys partially effective or imperfect nationwide defenses while maintaining some portion of offensive forces, this posture would give substantially advantageous damage-limiting capability to the United States. Therefore, U.S. deterrent power, including that of extended nuclear deterrence, will appear to be

stronger. But this posture will not just end up with strengthening deterrence. It at the same time will bring about a negative side-effect as in the case of the powerful counterforce potential discussed in Section 3: the destabilization of U.S.-Soviet mutual deterrence, specifically stability in times of crisis. This is because the newly deployed imperfect defenses will challenge not just Soviet incentives for striking first, but the efficacy and reliability of its retaliatory forces. Thus, a partially effective total defense will make the Soviet Union fear that the U.S. might be intending—or might decide in a serious crisis—to launch a first strike, relying on its defense shield to deal with a weakened Soviet response. Irrespective of American intentions, therefore, a partially effective nation-wide defense constitutes a first strike threat to the Soviet Union.

In addition, even if serious tensions should not erupt, such a mixed offense-defense posture, again as in the case of dominant counterforce capability, will bring about instabilities in the U.S.-Soviet arms race. The Soviet Union, losing confidence in its retaliatory capability, is very likely to initiate a large-scale offensive buildup to restore its retaliatory power, if it judges the cost benefit ratio between offense and defense were still strongly weighted against defense.<sup>128</sup> Such reinforcements will tend to be more than actually needed because the Soviet Union or any opponent is inclined to evaluate its capability conservatively while being apt to assume the other side's defense more effective than it actually is. This in turn compels the U.S. to respond—engendering an arms race spiral that would add

political tensions. Instability and tension in U.S.-Soviet nuclear relations, again as noted in Section 3, would not be conducive to the security of U.S. allies.

The aforementioned calculation also applies to the case in which not only the U.S. but also the U.S.S.R. deploys imperfect nation-wide defense systems.

### **Prospects for U.S.-Soviet Mutual Deterrence Under a Defense Dominated World**

Nation-wide defenses have to be leak-proof against all types of nuclear attack. If not, the elimination of offensive forces and the replacement of the long-standing retaliatory deterrent strategy are illusions. The requirements for a near-perfect defense, however, are staggering. In addition to attaining the cost-effectiveness of defense, a leak-proof defense shield has to be invulnerable to attack.<sup>129</sup> It must be effective against all means of nuclear weapons delivery, including aircraft and cruise missiles, and it must perform flawlessly the very first time it is called upon.

These requirements, even if met temporarily, cannot be sustainable. First, the Soviet Union could increase the requirements and costs of total defense through escalation and improvements of its offensive forces.<sup>130</sup> Second, the Soviet Union could negate the near-perfect defense by preferential offensive targeting.<sup>131</sup> The Soviets can choose which targets to attack and where to concentrate their forces, while the U.S. must be prepared to defend all valuable targets. Third, the competition

between offense and defense weapons is inherently disadvantageous for the defending side, even for technologically advanced countries like the United States. This is because defensive systems by nature run behind offensive systems in R & D and deployment of defensive measures can hardly forestall new offensive systems. Thus a near perfect total defense will not last and is not likely to remove the Soviet nuclear threat. This prospect does not allow the U.S. to abandon its offensive forces, which returns that country to an identical situation with the mixed offense-defense posture.

In view of this, in order to make a defense shield practical and reliable, Soviet cooperation including restrictions and reduction of its offensive forces is indispensable. What could bring this about? One plausible conclusion that might appear to elicit such cooperation is that the Soviet Union, too, might develop and deploy a comprehensive and fully reliable defense against nuclear attack. Only then might the Soviets accept the reduction and eventual elimination of their ability to penetrate U.S. defenses. The problem, however, is that neither the U.S. nor the Soviet Union can deploy a highly capable nation-wide defense overnight. Deployment of complete total defense systems would take years and the gradual deployment of such defenses would in turn make it difficult to restrict and reduce offensive forces. Until a near-perfect defense was deployed, the security of both the U.S. and the U.S.S.R. would continue to depend on deterrence through the threat of offensive retaliatory power. But as one side increases defense capability, the potential effectiveness of

the other side's retaliatory forces would decline while its defense would still not be reliable. The result would be that the latter would face powerful pressures to up its retaliatory forces. Interestingly, U.S. Secretary of Defense Caspar W. Weinberger has lent support to this prospect. In a letter to President Reagan on the Reykjavik summit eve, he wrote that "Even a probable [Soviet] territorial defense ... would require us to increase the number of our offensive forces and their ability to penetrate Soviet defenses to assure that our operational plans could be executed."<sup>132</sup> Thus the argument that parallel U.S.-Soviet moves toward deployment of a total defense system would lead to reductions in not only U.S. but Soviet offensive forces and to a safer defensive world seems unconvincing.<sup>133</sup>

Suppose that in some way or other the U.S. and the Soviet Union succeeded in deploying highly effective nation-wide defenses. Is this world more stable, less threatening, and safer? Highly effective total defense appears to make a strategic exchange unlikely by convincing each side that any attack would be futile. Nevertheless, even if the two countries could deploy such a magnitude of defense systems, the possibility of crisis instability and attendant danger of war would not be eliminated. The problem is that although offensive forces could be rendered impotent under total defenses, the defense systems themselves may be able to attack each other.<sup>134</sup> The consequences of such a war in space would be far-reaching if we imagine the side which once again became vulnerable to attack through the loss of its defense. In order to avoid such consequences, both the U.S. and the