

Körber POLICY PAPER

No. 3

**GOOD AND
BAD NUCLEAR
WEAPONS
BERLIN'S PART
IN SHAPING
NUCLEAR REALITY**

MICHAEL RÜHLE

About the Author

MICHAEL RÜHLE studied political science at the University of Bonn at a time when the 1980s debate about the deployment of theatre nuclear weapons was in full swing and hundreds of thousands of people demonstrated in the Hofgarten in Bonn against NATO's "double-track" decision. Today he is Deputy Director of Policy Planning in the Private Office of the Secretary General of NATO. As someone who has worked for several heads of NATO, he is an insider when it comes to transatlantic and German security policy.

About Körber Policy Papers

The KÖRBER POLICY PAPERS are intended to foster the debate on fundamental and current issues of German and European foreign policy. They provide politicians and experts with the opportunity to clearly state their opinions on particular foreign policy issues.

The Körber Policy Papers were originally published in the German book series "Standpunkte" by the EDITION KÖRBER-STIFTUNG, edited by the Swiss publicist Roger de Weck. Körber Policy Paper No. 3 was originally published in German in March 2009 under the title "Gute und schlechte Atombomben. Berlin muss die nukleare Realität mitgestalten" (ISBN 978-3-89684-137-7).

www.edition-koerber-stiftung.de

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Berlin Office of the Körber Foundation

Pariser Platz 4a

D-10117 Berlin

Phone: +49-30-20 62 67-60

Fax: +49-30-20 62 67-67

E-mail: ip@koerber-stiftung.de

www.koerber-stiftung.de

Imprint

Coordination Dr. Klaus Wehmeier, Dr. Thomas Paulsen

Editor Bernhard Müller-Härlein

Translation Alfred Clayton

Design and Typeset Das Herstellungsbüro, Hamburg

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Executive Summary

Since the dawn of the nuclear age, the question of how to cope with the existence of nuclear weapons has been a key issue of international politics. Their huge destructive potential gives nuclear weapons a unique political, military and moral quality. During the Cold War, nuclear weapons were part of a comprehensive strategy of war avoidance. The Cold War's bipolar character, nuclear security assurances by the United States for its allies, and the emergence of a global non-proliferation regime created a system that served to bridle nuclear ambitions. The nuclear risks were high, but manageable.

This era is over, and so is the "Golden Age" of non-proliferation. In its wake a "second" nuclear age has dawned, an age that follows different rules. Private proliferation networks have emerged that supply interested nations with the full range of know-how and hardware with which to become nuclear powers. Religious fundamentalism poses a radical challenge to the rational cost-benefit analysis that is essential for stable deterrence relationships. The renaissance of civilian nuclear energy and diverging interests within the UN Security Council further complicate the international community's response to these challenges. For these and other reasons, the goal of global nuclear abolition, despite its superficial appeal, will remain unattainable. Hence international politics will continue to be influenced by the existence of nuclear weapons.

Germany is a non-nuclear medium-sized power situated on a continent that hosts several nuclear nations and whose Middle East neighbourhood threatens to become nuclearized in the not too distant future. This poses new challenges for Berlin's foreign and security policy, including its relationship with the United States, whose nuclear protection Germany has enjoyed for over half a century. However, since the end of the Cold War, nuclear questions no longer feature in the German security debate. On the contrary, that debate reveals the collective mindset of a country that finds it difficult to acknowledge the security challenges of the age of globalization. In coming to terms with the emergence of a "second nuclear age," Germany needs to craft a comprehensive policy that moves beyond general calls for nuclear disarmament and seeks to shape the new nuclear reality in line with German security interests.

Preface

Security is a Risky Business

What is security? The question seems rather banal, but the answer is a complex one. Security is certainly not about not incurring any risks at all, or indeed of wanting to exclude risk of any kind. There is no such thing as an absence of risk, and those who believe that the opposite is the case have just been proved wrong by the profundity of the current economic crisis. All those mathematical models, financial tools and devices which were supposed to reduce risk turned out to be completely useless. And risk is not only a feature of the crisis as such. The attempt to overcome it with the help of an unparalleled level of government expenditure is also extremely risky. Risk cannot be overcome without incurring risks. And security can be attained only by incurring risks, which in their turn may in fact diminish the level of security.

People who remember that their history in the first half of the 20th century consisted of extermination, moral turpitude and destruction are afraid of experiencing great catastrophes. And the nuclear bomb is a symbol of utter destruction. Although it is supposed to make a contribution to security, in the Federal Republic the bomb itself is considered to be the real danger. This leads people to infer that a world without nuclear bombs would be a safer world. Yet the Holocaust, the worst catastrophe imaginable, began and ended before Hiroshima, at a time when operational nuclear bombs did not exist. The absence of nuclear weapons cannot prevent the worst from happening.

The hope that the bomb will “finally” disappear is, depending on one’s point of view, either a dangerous illusion or an uplifting Utopian vision. But if one construes policymaking as the art of the possible, it should never be based on either illusions or Utopian visions. This is where Michael Rühle makes his entrance: “Germany’s political room for manoeuvre is not determined by its denial of nuclear reality, but by the extent to which it plays a part in shaping it.” Here the author breaks with a taboo. Is he of the opinion that Germany should start to acquire nuclear weapons? “No,” he replies. “There are good reasons why Germany has decided that it will never possess a bomb of its own.” But he adds, “Nevertheless Germany certainly has nuclear interests.” This is the banal and yet complex message at the heart of this essay. It is something that has never been expressed so clearly and succinctly in the Federal Republic.

Analyzing these nuclear interests is the subject matter of this book. It is possible to object to everything that Rühle says. However, it is impossible to evade the basic assertion that Berlin, on account of its nuclear interests, must play a part in shaping nuclear reality. This essay is one of the most important contributions to our understanding of German security policy (which, if one were being honest, one would have to call “risk policy”). For many people the book may be so inopportune and irritating that they will deliberately refuse to discuss it. However, the Körber Policy Papers exist in order to invite people to participate in debates which Germany would prefer to forget.

Roger de Weck

Editor of the series “Standpunkte”

Living in the Shadow of the Bomb

Germany has nuclear interests. This statement is as brief as it is problematical. Does it mean that Germany harbours military nuclear ambitions? Or that it is in fact trying to acquire nuclear weapons? A hundred years after its ill-fated “quest for world domination,” is Germany now reaching out for the bomb?

The answer to this is No. There are good reasons why Germany has decided that it will never possess a bomb of its own. Being a Non-Nuclear Weapons State is part of its political creed. Nevertheless, Germany does have nuclear interests on several levels. Firstly, as one of the world’s leading industrial nations Germany has considerable energy requirements, and in the foreseeable future these will be met to a large extent by self-generated and imported nuclear power. Secondly, Germany has a successful export-oriented nuclear industry and is thus interested in an international political environment which will allow it to use this industry to its own economic advantage. Thirdly, as a non-nuclear medium-sized European power Germany requires the protection of a nuclear ally. And it is precisely this permanent non-nuclear status which determines yet another German interest: to shape a global security order in which the security concerns of the non-nuclear states are given sufficient attention.

Reconciling these interests was never easy. This was especially true between the 1960s and the 1980s, when the Federal Republic was embroiled in a controversial debate on whether and how its support for nuclear non-proliferation could be reconciled with the need for nuclear protection on the one hand and the interest in enjoying the economic benefits of civilian nuclear technology on the other. Today, few will remember that Chancellor Konrad Adenauer once briefly toyed with the idea of the nuclear option, or that Willy Brandt, when he was foreign minister, vehemently lobbied for the idea that a future nuclear non-proliferation treaty should place as few constraints as possible on Germany’s civil nuclear industry. And few will remember that the West German government, when signing and ratifying the Nuclear Non-Proliferation Treaty (NPT) in 1969 and in 1975, appended a list of provisos, at least two of which are still of importance today: the link with NATO membership and the so-called “European option,” that is, the possibility of the acquisition of a nuclear capability by a European federal state that included the Federal Republic. In retrospect, some of these past debates may seem rather strange, yet they show nonetheless that there were no simple truths. At that time Germany was wrestling with conflicting fundamental interests that were difficult to reconcile.

Today, the notion of conflicting nuclear interests has all but disappeared. Since the end of the Cold War and the “entry into the exit” (“Einstieg in den Ausstieg”) from the civil use of nuclear energy, Germany’s nuclear interests seem to have been reduced to one goal only, namely to promote nuclear disarmament. Seemingly under no threat and morally purified as a result of its attitude to civil nuclear energy, Berlin is playing the role of the nuclear star pupil. This one-dimensional view is shared both by the political elite and the electorate. Moreover, it corresponds to the firmly entrenched self-image of many German ministerial bureaucrats, who believe that their business is the art of statecraft, whereas the US is in the business of war.

This essay does not address the question of how Berlin intends to approach the issue of civil nuclear power today and tomorrow. However, an examination of the military use of nuclear power reveals striking parallels with the way in which the civil use of nuclear power has been dealt with. Just as Germany’s exit from nuclear energy in retrospect—and particularly in the light of the new energy crisis—appears almost playfully defiant and headstrong, so the idea that one can somehow steal away from the military dimension of nuclear reality has something frivolous and irresponsible about it. In the final analysis Germany’s gradual exit from the civil use of nuclear energy has had no influence whatsoever on the globally increasing demand for nuclear energy, and Germany now simply satisfies its energy requirements with nuclear-generated electricity from neighbouring countries. A similar pattern can be observed in the face of new security challenges. By “outsourcing” difficult problems to others, in particular to the United States, Germany is trying to preserve its political and moral innocence.

However, it is impossible to escape nuclear reality. Even a new international euphoria with regard to nuclear disarmament cannot change the fact that for the foreseeable future the international security situation will be shaped by the existence of nuclear weapons. In short, nuclear reality is something that Germany will have to live with.

Nuclear Weapons as an Intellectual Challenge

The question of how to deal with the existence of nuclear weapons has been a key issue in international politics since the advent of the nuclear age. Their enormous destructive power imparts to nuclear weapons a special political, military and indeed moral quality. This makes an unbiased approach to this

issue next to impossible. Expressing moral outrage is much easier than grappling with the question of how to embed the existence of nuclear weapons in an intelligent security strategy. Moreover, nuclear issues are matters of belief beyond the range of empirical enquiry. For more than 60 years no nuclear weapons have actually been used. Their preeminent rationale is to prevent a conflict by deterring a potential opponent. However, since it can never be demonstrated unequivocally why a conflict *did not* occur, in the final analysis the war prevention function of nuclear weapons is no more than an assumption. The same holds true for the specific political and military functions ascribed to nuclear weapons. Thus, while the issue of what constitutes “credible” deterrence may have kept generations of experts on their toes and created opposing schools of thought, a definitive answer as to who is actually right remained elusive.

However, it would be wrong to conclude that the lack of empirical evidence means that all different views and opinions are of equal value. The assumption that the absence of rain has something to do with the complexity of the weather is simply more plausible than the supposition that the drought was caused by the sun dance of a voodoo priest. When it comes to questions which cannot be answered conclusively there is a need for a high level of intellectual discipline. This applies particularly to the interpretation of the role of nuclear weapons in the Cold War. Their role has now become subject of a revisionist view of history which seeks to depoliticize them.

I. The First Nuclear Age. Nuclear Weapons in the Cold War

The beginning of the Cold War and the advent of the nuclear age were two epoch-making historical events which in a rather frightening way occurred almost simultaneously. As early as 1945, when, in the final days of the Second World War, the US dropped two nuclear bombs on Hiroshima and Nagasaki, it became apparent that the makeshift alliance between Washington and Moscow would not survive after hostilities had come to an end. The interests of the two powers were simply too far apart. So the Cold War actually began while a hot war was still in progress. The early end of the American nuclear monopoly in 1949 was the last straw. The world became bipolar and nuclear at the same time, a symbiotic relationship which was to last for four decades, and to this day still determines thinking about nuclear matters, especially in Europe.

The beginning of the nuclear age was a strategic revolution. From now on, strategy was no longer just the art of using force, but also the threat of using force, i.e. deterrence. However, it took some time before the two sides began to think in terms of these categories. In NATO and the Warsaw Pact nuclear weapons were initially seen simply as particularly effective military weapons, without any special political quality.

Over time, however, the perception emerged that with the exception of immediate self-defence no political goal would justify a nuclear exchange. The "absolute weapon" (the title of the first major academic study of the nuclear age in 1946) created a new situation in military, political and psychological terms. The prevention of war became the supreme political task.¹

Due to the enormously destructive power of nuclear weapons, their use can only be contemplated in existential circumstances. However, if an attacker were able to deploy superior conventional forces swiftly in order to establish a political and military *fait accompli*, it would undercut the use of nuclear weapons by the defender, thus rendering his nuclear deterrent ineffective. For this reason the arms race continued even under the shadow of the threat of nuclear annihilation. Yet military potential constituted only part of the equation. Since a cogent military strategy provided political freedom of action, operational military planning also became part of the political rivalry. Thus the arms competition was, in effect, also a competition of strategies.

Rationality and “Nuclear Learning”

Yet the wars which were fought in Europe during the Cold War were merely “virtual” wars conducted on the drawing boards of military planners. Even if the Warsaw Pact, as we now know, subscribed to a military strategy which in the event of hostilities envisaged a nuclear first strike, the political will to prevent a war always gained the upper hand. Under the shadow of the nuclear threat Europe enjoyed an unparalleled period of peace. Furthermore, the nuclear age created its own rules of conduct. Systemic competition took place within unwritten but nevertheless accepted limits. The superpowers’ caution in dealing with one another showed that a “nuclear learning” process had set in.² Evidence of this learning was the arms control process, which began, probably not by accident, after the 1962 Cuban missile crisis with the signing of the Nuclear Test Ban Treaty. The ABM Treaty of 1972 went even further, as the two sides agreed not to deploy comprehensive missile defence systems which would have undermined their ability for nuclear retaliation. It thus codified the principle of mutual vulnerability as the systemic precondition for nuclear deterrence—a morally controversial solution, to be sure, yet initially defensible given the circumstances of nuclear bipolarity.

Nuclear Participation in the Alliance as a Political Achievement

Nuclear weapons are the ultimate expression of national sovereignty. A state which possesses such weapons may not possess absolute security, but its nuclear status significantly influences the risk calculus of potential adversaries. Hence, the nuclear arsenal of a state first and foremost protects that state itself. Still, nuclear deterrence can also be extended to protect non-nuclear allies. In principle all that is needed is a succinct declaration by the state which possesses nuclear weapons that an attack on its ally will lead to nuclear retaliation. Whether such a promise is perceived to be credible, however, is a different matter. At any rate, the European NATO members, which had started early on to rely on the US “nuclear umbrella,” did not find it easy to answer this question. In fact the natural interests of America, namely to reduce the nuclear risks of its alliance commitments, collided with the diametrically opposed interests of the Europeans, which were to link the fate of the US as closely as possible to their own.

In the late 1960s, after long and controversial debates, the allies were able to forge a compromise between political and military credibility on the one hand and the European—and especially German—interests to exert some influence on US nuclear strategy on the other. American nuclear weapons in Europe symbolized the military credibility of enhanced deterrence externally, while European nuclear-capable aircraft and the establishment of a “Nuclear Planning Group” for the development of a joint strategy underlined the collective character of the Alliance internally. In this way nuclear participation also became a non-proliferation tool, for the US thus ensured that its European allies no longer had any reason to develop nuclear weapons of their own. In keeping with the norms of non-proliferation, the US retained control over its nuclear weapons, yet the allies participated in the nuclear mission both in material and conceptual terms. This arrangement could not resolve the fundamental dilemma that a nuclear state does not and indeed cannot share its power with others. However, it introduced an element of status equality into Alliance policy.

The Other Side of the Bomb. The Depoliticization of Politics

But that was then. Today, a new generation has grown up for whom the events before 1989 mean very little. Increasingly, the nuclear competition of the east-west conflict is being perceived as an example of a fruitless endeavour or even of plain foolishness. Why did the West spend billions to sustain a nuclear competition with a political system whose economy and society were so obviously rotten to the core? Future generations will perhaps come to believe that while the West may have won the Cold War, it did so only at a very high price: It took upon itself the risk of being physically annihilated.

However, this view of the Cold War as a phase of mindless “nuclearization” misses the point. The nuclear competition of the Cold War did not constitute a mechanistic “arms race”—nor did it constitute a competition of the West with itself. The east-west conflict was a political and ideological conflict, a struggle first and foremost about the final political order in Europe. For the Western democracies, arms were an expression of political self-assertion in the face of an openly expansionist ideology of the Soviet Union. Moscow left one in no doubt that it viewed these weapons not only as a means of self-defence, but also as a tool with which to retain power within its own empire and to exert psychological influence on politics and society in the West. In other words, the political

context of armaments in east and west could not have been more different. If in retrospect these systemic differences are nowadays becoming increasingly blurred and the Cold War is seen merely as “arms madness,” then this shows that a danger emanates from nuclear weapons which goes far beyond their destructive physical effect. Nuclear weapons depoliticize politics. They are the moral “equalizer” which no longer seems to make a distinction between democracy and dictatorship. The symmetry of destructive power suggests a political symmetry and thus also moral equivalence.

Nowhere did this intellectual impoverishment become more clearly evident than in the Federal Republic of the 1980s. The 300,000 supporters of the Peace Movement who assembled in the Hofgarten in Bonn in 1981 to protest against the “insanity” of the “arms race” were unwilling to engage in a fundamental discussion about freedom and authoritarianism. Since they were convinced that a Third World War was imminent, there was no room for debates about the political roots of the east-west conflict. The notion that the nuclear weapons of the open societies of the West were qualitatively different from those of a totalitarian and non-transparent Soviet Union which did not have a civil society worth mentioning made no impression on them. Thus the beliefs of the Peace Movement were summed up in the slogan “armaments kill” (“Rüstung tötet!”). If anyone in particular could be blamed, it was the US. For the protesters, the prime cause of the arms race was America’s conviction that even in the nuclear age one could distinguish between good and evil. By contrast, the Peace Movement believed that in the face of nuclear annihilation, survival was far more important than debating systemic differences.

Negative Militarism

Such a depoliticization of politics as a result of the fear of nuclear annihilation was not just confined to the peace demonstrators. The Peace Movement was supported by and supplied with a theoretical superstructure by a security policy “counter-elite” at universities and research institutes, and even by policymakers. This group compressed the vague unease about nuclear armament in east and west into a political theory. At the heart of this theory was the notion that the real reason for armaments was not the east-west conflict; rather, the arms race actually perpetuated an east-west conflict which could have been resolved at a much earlier date. Hence, a change in the political landscape had to be induced by changing armaments. The result of this logic was an inflation

of generously footnoted analyses on nuclear disarmament and on transforming Europe by adopting a military posture of “structural non-aggression.”

The Soviet Union initially greatly benefited from such depoliticization by fear. Emphasizing “common survival” in the face of nuclear terror allowed Moscow to deflect attention from other issues, such as the poor Soviet human rights record. The nuclearization of the security debate thus helped Moscow out of a political and moral quandary. The fact that elected Western policymakers nonetheless did not yield to the pressure of the street seems in retrospect like an important victory on the path leading to the end of the Cold War. Despite massive Soviet support for the European Peace Movement the Western governments stayed the course. The rest is history. Gorbachev’s reformist policies, which were the response to the catastrophic economic failures of the Soviet system, got out of control and led not only to the end of Soviet predominance in eastern Europe, but finally to the end of the Soviet Union itself. The far-reaching conventional and nuclear disarmament steps which now followed not only sealed the formal end of the Cold War. They also signified the demise of apocalyptic hysteria. The Cold War had not become hot, nor had the transformation of east-west relations been brought about by changing military postures into a structural non-aggression capability. The political transformation of the Soviet Union had not come about as a result of changes in the Western arsenal, nor was it the result of more conciliatory American policies. The Soviet Union broke apart as a result of its own internal contradictions—and thus precisely as a result of those very factors which the Peace Movement and its supporting security policy counter-elite never wanted to address. The advocates of disarmament had fallen victim to their own negative militarism.

Today it is particularly important to remember this lesson. Although historical comparisons may well be questionable at the best of times, the parallels to the current non-proliferation discussion are striking. Then as now, the US is being blamed for every negative international security development. And then as now, one can observe a tendency to stigmatize nuclear weapons as an existential threat to humanity, and to deny their function of deterrence and war prevention.³ In this debate, merely raising the question of whether the possession of nuclear weapons by democratic states may have a different quality than their possession by authoritarian or even fanatically religious regimes is considered to be suspicious or reckless. Still, the question of the political context in which nuclear weapons exist remains a key issue for the future of the international system.

The Nuclear Non-Proliferation Treaty

The Cold War spawned numerous arms control agreements. Some, such as the ABM Treaty, became obsolete with the end of bipolarity. Others, on the other hand, have survived the end of the Cold War. Probably the most important is the Nuclear Non-Proliferation Treaty (NPT). This agreement owed its creation to the fears that a world in which more and more states possess nuclear weapons would be a more dangerous world. The initial political momentum for such an agreement came from the US and the USSR. Despite being nuclear rivals, both countries shared a common interest in trying to prevent the rise of more nuclear powers beyond the five permanent members of the UN Security Council (US, USSR, France, United Kingdom, China). Without comprehensive restrictions, it was thought at the time, far too many states—including one's own allies—would succumb to the temptation to acquire nuclear prestige. John F. Kennedy's dire prediction in 1963, that ten years from now one might have to deal with 15 or even 20 nuclear states, tellingly reflected this pessimism.⁴

Yet what was a treaty supposed to look like which strove for nothing less than the mutually agreed inequality between nuclear powers and “nuclear have-nots?” And how could an arms control regime be established that, as certain critics were quick to point out, was tantamount to a system of “nuclear apartheid?” The construction of the NPT provided the answer. The non-nuclear signatories to the Treaty were promised various kinds of compensation. On the one hand they would obtain help with the civil use of nuclear power—a most attractive option in the late 1960s. Secondly, the signatories would be able to benefit from a predictable strategic environment, since the Nuclear Weapons States would not transfer any militarily relevant nuclear technology to others, promised to engage in general disarmament efforts, and pledged not attack nuclear-free states with nuclear weapons. Finally, the Treaty was initially of limited duration, and also contained the option that states could leave it if superior national interests were at stake.

However, some of the Treaty's weaknesses were also quite apparent. For example, while the International Atomic Energy Agency (IAEA) was to monitor compliance with the Treaty's provisions, there were no sanctions mechanisms in case of non-compliance. The character of the Treaty as a temporary agreement helped to make the inequality more bearable, yet it also made the Treaty extremely vulnerable to changes in the international political landscape. Above all, however, it was to be expected that the non-nuclear states would sooner or later insist on the commitment to general disarmament by the nuclear powers—either because they were genuinely convinced that this should happen, or as an alibi for carving out a path to becoming nuclear powers themselves.

The Achilles' heel of the treaty turned out to be its energy policy dimension. In essence, the NPT prevented military proliferation by encouraging civil proliferation. However, since the differences between civilian and military nuclear technology are only marginal, some experts warned right away about a situation that today appears to come true in Iran. A state could abuse its legal civil nuclear programme to inch to the threshold of being a nuclear power. The Treaty prohibited the final steps leading to the production of nuclear weapons, yet a resolute and determined regime would take these steps right after leaving the NPT at short notice.⁵

Despite these well-known weaknesses the NPT initially proved to be a great success. Slowly but surely almost all the states in the world acceded. Nuclear non-proliferation even seemed to be developing into a global political and moral norm. For example, on its path to democracy, South Africa terminated its advanced nuclear weapons programme in the late 1980s. And when the Cold War ended, the newly independent states on the territory of the former Soviet Union handed over their nuclear weapons to the Russian Federation and joined the NPT as non-nuclear states. The peak of this positive development was the May 1995 agreement to extend the NPT indefinitely.

II. The Second Nuclear Age. Are We Losing Control?

However, at the time perceptive observers were not in a mood to rejoice. Even the indefinite extension of the NPT was a questionable success, for it violated a fundamental principle of international politics. A regime that is inherently unjust can only survive if it at least contains the prospect that at some point it will be overcome. However, the NPT's indefinite extension cemented its inherent inequality, as a result of which the debate now moved to another level. Increasingly, the Treaty was being reinterpreted as an obligation by the Nuclear Weapons States, above all the US, to act upon their pledge to disarm. Until then, despite ritualistic attacks by the non-aligned movement, most nations had tacitly recognized the Treaty's structural imbalances as a fact of life. However, once the Treaty had been made an indefinite deal, it became the stage for an open struggle between the Nuclear Weapons States and some of the "have-nots." The failure of the NPT Review Conference in May 2005, due to differing views on the responsibilities of nuclear and Non-Nuclear Weapons States deriving from the Treaty, marked the low point in this struggle.

It is ironical that this debate, in which the NPT is increasingly being interpreted as no more than a provisional measure on the path to comprehensive disarmament, started just at the time when the foundations of the international non-proliferation regime were beginning to crumble. With the end of the east-west conflict the structural role that nuclear weapons had played in a system of mutual deterrence also came to an end. On the other hand the effects of globalization began to make themselves felt with increasing force. The striving for nuclear weapons is now proceeding outside the set of the norms of behaviour that evolved over the course of four decades. Moreover, in some cases it is also proceeding outside the international structure of nation-states. The results of these developments are visible in a number of developments which have now placed the non-proliferation regime under serious strain.

The Erosion of Non-Proliferation

Very soon after the end of the Cold War one of the pillars of the non-proliferation regime began to disintegrate. Early in 1991, shortly before the Gulf War, when the US was concerned about a possible Iraqi chemical weapons attack on coalition forces, it warned Saddam Hussein that such a step would lead to the end of his regime. This warning, which was widely understood as an implicit nuclear threat, was in fact not a formal abrogation of the negative security guarantees which prohibit the use of nuclear weapons against a Non-Nuclear Weapons State. Yet the episode underlines that the possession by certain states of biological and chemical weapons of mass destruction has to be included in the nuclear equation. The assumption that nuclear weapons simply serve to deter the use of nuclear weapons by an adversary no longer corresponds to military reality. Hence, a global security provider like the US, which has to assume that in the future it will be dealing with adversaries armed with chemical and biological weapons, cannot renounce the use of nuclear threats, at least rhetorically.

The next disappointment followed immediately after the Gulf War in 1991. It became apparent that for many years Iraq had been pursuing a comprehensive military nuclear programme which was only a few months away from the production of a deployable nuclear warhead. This revelation was a fiasco for the IAEA. Despite many years of regular controls, no one had noticed this programme. The international community reacted promptly. A protocol appended to the NPT enhanced the competences of the IAEA, which could now carry out more intrusive inspections. Yet to this day there remain doubts about whether the compliance with the current non-proliferation regime can be sufficiently verified. This is all the more crucial as the question of whether and how one should deal with cases of non-compliance remains largely unanswered.

The challenges in the Middle East were soon joined by problems in Asia. In 1994 the United States, by exerting massive diplomatic pressure, managed to freeze the suspicious North Korean plutonium programme at least temporarily, but Pyongyang circumvented the agreement by operating a parallel secret uranium enrichment programme. The crisis surrounding the nuclear ambitions of North Korea, which in 2003 left the NPT and in October 2006 actually carried out an (unsuccessful) nuclear test, continues to this day. Even the Bush administration, which sought to replace what it considered to be a negligent North Korea policy by the Clinton administration with a more cogent and determined approach, in the end failed to make any progress. North Korea continues to adhere unwaveringly to its nuclear option and attempts to ensure the preservation of its own political system by making small concessions, for which it expects to be generously rewarded. Pyongyang not only retains the

nuclear warheads it has already manufactured; it also continues to be in a position to enrich uranium. In other words, North Korea continues to be a nuclear power—and the goal of a “denuclearized” Korean peninsula agreed to as long ago as 1992 remains elusive.

A few years later India and Pakistan, two of the handful of states which never became signatories to the NPT, dealt another severe blow to the non-proliferation regime. Their nuclear tests, which were conducted almost simultaneously in 1998, once again underlined the fact that Asia was the new hotbed of proliferation. In this part of the world there are developments which Europe was spared in the bipolar era of the Cold War: the conflation of aggressive nationalism and nuclear weapons. At the same time these developments highlighted the question of what should be done with states which are not signatories to the NPT. Should they be permanently ostracized in order thus to demonstrate the significance of the non-proliferation norm? Or should they be recognized as official nuclear powers in order to make membership of the NPT and its control regime palatable to them? To this day this is a point on which the experts agree to differ.

The New Nuclear Powers. The Special Case of Iran

Despite these negative developments there were certainly still good grounds for cautious optimism with regard to non-proliferation. At the end of the 20th century the five nuclear states recognized by the NPT had been joined by only four others. Furthermore, it was possible to surmise that none of these four new nuclear powers gave rise to fears of a regional domino effect. The nuclear weapons of India and Pakistan were first and foremost directed against each other. Israel said nothing about its supposed arsenal in order not to provoke a counter-reaction in the Arab world; and North Korea’s nuclear weapons were primarily intended to preserve its Stalinist political system. Two other countries with nuclear ambitions, Iraq and Libya, did not manage to attain the nuclear status they had been aiming at. Iraq was permanently denuclearized by the Gulf War in 1991 and the American invasion in 2003. And probably partly under the impression of the fate of Iraq, Libya gave up its erstwhile ambitions. The fears which had been entertained, especially at the start of the 1960s, that the then five nuclear powers would soon be followed by many others, still seemed to be without foundation 40 years later. Indeed, the number of states that gave up their nuclear programmes over the past few decades exceeds the

number of states that started such programmes. All in all, a pretty impressive result for nuclear non-proliferation. However, this success story is just coming to an end. Another applicant is now insisting on membership of the nuclear club, and this applicant, for political, religious and geographical reasons, is in a different category than the other nuclear upstarts of the recent past. The Islamic Republic of Iran occupies a key role in its regional environment. If Iran became a nuclear power it could trigger a nuclear domino effect in the Middle East which would practically nullify past non-proliferation successes. It would constitute the start of a completely new era in the proliferation of nuclear weapons—an era that would no longer revolve around the handful of the “usual suspects.” Rather, it would be an era in which even states would seek to obtain a nuclear option which have hitherto eschewed it because it was in their own best interests to do so.

The way in which Tehran is intending to acquire the bomb is an object lesson in itself. Iran demonstrates how a country, without incurring any serious consequences, can use the privileges of the NPT for the purposes of nuclear militarization. Iran is also a case study of how the norm of non-proliferation is increasingly being eroded, and, moreover, that this erosion is also accepted as inevitable by many of those who usually pretend to be the guardians of the non-proliferation regime.

The confusion and contortions surrounding the Iranian nuclear programme began in 2003 when an Iranian opposition group published a comprehensive set of facts about a secret Iranian nuclear programme. This information demonstrated that Iran, a signatory to the NPT, had for 18 years been working on a uranium enrichment programme which it had kept secret from the IAEA. However, the reaction of the Iranians was different than might have been expected. On the one hand Tehran admitted that it had made mistakes and conceded that the IAEA would henceforth be able to inspect certain installations. Yet the Iranian leadership remained steadfast in clinging to its NPT-stipulated “inalienable right” to use nuclear energy for civilian purposes and flatly rejected the idea that it had any military intentions. What then followed was an endless series of biased statements and misjudgements which continues to this day. It began with the technical evaluation of the programme, in particular the question of its military dimension. Numerous indications suggested early on that the Iranian efforts were of a military nature, among them the excessive secrecy and the parallel development of long-range missiles, some characteristics of which pointed to their use as delivery vehicles for nuclear warheads. Nevertheless many prominent non-proliferation experts were initially unwilling to state that this was very probably a military project. Last but not least, as a result of the Iraq debacle people were loath for a long time to make any far-reaching assessments. Instead for several years the debate circled around the question

of how many centrifuges were needed in order to produce a certain amount of uranium in a certain period of time. It was bad enough that in the course of this debate many “experts” simply copied each other’s writings and others got hopelessly lost in the maze of the physics. Yet far more important was the fact that practically all of the forecasts turned out to be wrong. The speed with which Iran set up the centrifuges, replaced old models with more effective models and surmounted all sorts of technical obstacles surprised even those who had from the very beginning described the programme as an ambitious large-scale project. Finally, contradictory statements by various US intelligence services about the time frame of the Iranian programme led to utter confusion.

Political assessments, too, were out of touch with reality. When the UN Security Council and Germany embarked on their attempt to contain the Iranian programme with a combination of economic incentives and threats of sanctions, some experts proclaimed that Europe’s hour had now come. Since Iraq had demonstrated that the US approach was a failure, it was now Europe’s turn to show that it could develop a more promising approach. Sceptics who doubted whether Tehran would allow itself to be deflected from its chosen path by economic incentives were greeted with a great deal of professional optimism. Since Iran was a relatively modern society with a growing younger generation that evinced pro-Western tendencies, it was above all important to gain time for domestic political changes. A moderate regime in Tehran would be more reasonable with regard to the nuclear question. Even the objection that Russia and China, solely for economic reasons, were not really interested in a solution, went unheeded. An Iran with nuclear weapons, one was being told all over the place, was quite clearly not in the interests of these two countries.

The question of whether European involvement in the Iran crisis was motivated primarily by a desire to prevent Iran becoming a nuclear power, or whether the overriding motive was rather to prevent another American military intervention in the Middle East cannot be answered conclusively. Yet one thing is certain. The approach has been a failure. Iran has continued to pursue its programme unabated, and Russia and China have demonstrated by their concrete behaviour that they are not prepared to sacrifice their energy and economic interests for the sake of a harder sanctions-based policy towards Iran.

Even worse, in the international proliferation debate more and more voices are being heard in defence of the Iranian bomb. According to these views, Iran finds itself in a highly nuclearized neighbourhood, which would make it appear only natural if Tehran were to follow the example of Russia, China, Israel and Pakistan. Another view contends that while it is true that the Americans have permanently denuclearized Iran’s arch-enemy Iraq, the fear of a similarly violent “regime change” in Tehran—and thus the desire for a defensive nuclear option—is perfectly comprehensible. As a great nation with a cultural tradition

and an identity reaching back thousands of years it is in any case impossible to deny Iran a natural leadership role in the Middle East. In short, according to these views, an Iran which possesses nuclear weapons is a development which one simply has to accept for what it is. And in any case, Iran as a nuclear power was also subject to the principles of deterrence, and this fact would prevent Tehran from embarking on a policy of nuclear adventurism.⁶

These and similar arguments are not without merit, all the more so in view of the fact that the example of the American nuclear agreement with India shows that even a nuclear sinner may be forgiven sooner or later. However, the international non-proliferation regime cannot survive if these views were to carry the day. Unlike India and Pakistan, which never joined the NPT, Iran became a signatory to the Treaty as a Non-Nuclear Weapons State. If in full sight of the international community Iran becomes a Nuclear Weapons State, and manages to achieve this goal almost to the bitter end within the Treaty, then the notion of the NPT as a pillar of global international order will become virtually meaningless. Furthermore, the argument that in the final analysis a nuclear Iran would be just as “deterrable” as any other state should be treated with a degree of caution. There is little experience with countries which possess nuclear weapons, define themselves as the only true theocracies, claim to have a special political and religious position in their regions, and which work deliberately to destabilize their neighbours. When missiles are displayed at Iranian parades with banners calling for the annihilation of Israel, and when Iranian schoolbooks glorify collective sacrificial death, then this again is not exactly a sign that Iran will be an eager pupil in a process of “nuclear learning.”⁷

Nuclear Dominoes

But this is only one half of the problem. Even if Iran, after attaining its nuclear weapons capability, were to become more moderate and some kind of deterrent relationship with Israel were to emerge, there would still be doubts about the long-term stability of the region. The indications are that many neighbouring countries are not prepared to remain idle as Iran proceeds to become a nuclear power. It is true that the Arab states regularly condemn what they suspect is an Israeli nuclear weapons programme and call for a nuclear-free zone in the Middle East. Yet the behaviour of the most important regional actors shows that their main concern is not a real or “virtual” Israeli arsenal; it is the regional predominance of a nuclear Iran. Many Arab states consider the

Israeli arsenal—and the West’s refusal to say anything about it—to be an example of Western double standards. But in contrast to Iran, the Israeli nuclear programme is not meant to back up hegemonic ambitions. An Israeli deterrent is in the truest sense of the word no more than a “last resort” for a state which, on account of its small size, would not survive even a limited nuclear strike. The official and deliberately ambiguous Israeli formula that it does not intend to be the first country “to introduce” nuclear weapons to the Middle East underlines the assertion that its own arsenal should merely be construed as a “virtual” one without an offensive political agenda—and that it should also be perceived by others along these lines.⁸

In the meantime a dozen states in the Middle East and the Gulf region have announced their intention to accelerate the peaceful use of nuclear energy. It is not an accident that these decisions were taken shortly after the world had learned about the Iranian programme. It thus seems logical to assume that these states, by establishing what will initially be a civil nuclear infrastructure, are striving for an insurance policy against Iranian posturing as a great power. These new developments will not lead to a sudden increase in the number of declared Nuclear Weapons States, but to an increase in the number of “virtual nuclear powers” which can transform their civilian programmes into military ones at very short notice.

Saudi Arabia is at the centre of the debate about a possible nuclear domino effect in the Middle East. For the largest Sunni Gulf state, the prospect of its Shiite rival going nuclear would constitute such a significant challenge that many observers believe a Saudi response to be inevitable. A number of high-ranking Saudi officials have made statements to this effect in private. However, Saudi Arabia would probably pursue a different path to the bomb than its neighbours. Instead of initiating a lengthy, expensive, and technically and politically risky national nuclear programme, Riyadh could obtain a nuclear capability by purchasing the required components. Rumours that Saudi Arabia had helped to fund Saddam Hussein’s nuclear programme in the 1980s in order subsequently to obtain some of the warheads have never been confirmed. However, the acquisition in the late 1980s of medium-range nuclear-capable missiles of Chinese origin is just as certain as Saudi interest in Pakistan’s nuclear weapons. It is estimated that Saudi groups have supported the Pakistani nuclear programme to the tune of several hundred million dollars. However, the links between Saudi Arabia and Pakistan are not only of a technical nature. The close religious ties of these two states are also of significance for the future of nuclear non-proliferation. The discussion within Pakistan about a “nuclear umbrella” to be provided to friendly Islamic states has been virtually ignored in the West, yet it may hint at the emergence of entirely new forms of nuclear cooperation. Some years ago high-ranking members of the Pakistani armed

forces publicly toyed with the idea of “stationing” Pakistani nuclear warheads on Saudi missiles. A Saudi planning document circulated in the autumn of 2003 suggested that such an “extended deterrent”—in which Pakistan would retain control over the warheads—might be a possible alternative to the increasingly unrealistic option of a nuclear-free Middle East on the one hand and a national Saudi deterrent on the other. However, this hardly seems a reassuring (or crisis-proof) option.⁹

These developments will not lead to the short-term nuclearization of the Middle East. However, if Iran were to use its new nuclear capabilities in order to strive for political hegemony, the situation could change very rapidly. The most important states of the Middle East, especially Saudi Arabia, would then be tempted to give up their nuclear restraint and to transform their latent civilian nuclear capability into a concrete military capacity. Europe would then have a neighbouring region in which every military dispute contained the risk of nuclear escalation.

“A Nuclear Supermarket”—Transnational Proliferation Networks

In October 2003 American, British and German authorities diverted the “BBC China,” a cargo ship registered in Germany and heading for Tripoli, to sail to an Italian port. The cargo which the ship had previously taken on board in Dubai was a controversial one: components for gas centrifuges for the enrichment of uranium that were manufactured in Malaysia. Muammar Ghaddafi, who for some time had been looking for ways of bringing the international isolation of his country to an end, understood the signs of the times and responded accordingly. Two months later Libya declared that it was giving up its weapons of mass destruction programmes.

Libya is rightly considered to be a model example of a successful nuclear “rollback.” International solidarity had maintained the painful sanctions regime, wise American and British diplomacy had prepared the ground for Ghaddafi to make a face-saving U-turn out of a strategic dead end, and the cooperation of Western authorities had made possible the detention of the “BBC China.” Yet Libya will probably remain a special case. Ghaddafi had pursued his nuclear ambitions only half-heartedly, and his scientists had achieved very little. For the headstrong head of state giving up his nuclear programme was thus not too much of a sacrifice. However, in the case of North Korea and Iran

things are rather different, which makes a repetition of what happened in Libya impossible. Nor will the Libyan model apply should terrorists succeed to acquire nuclear weapons. Furthermore, if one examines in greater detail how Libya obtained the components and blueprints for its nuclear programme, it quickly becomes apparent why the proliferation of weapons of mass destruction will continue to be a central problem of international security. In the last two decades a private “nuclear black market” has emerged which invalidates most of the assumptions on which the classical non-proliferation regime has been based.

The NPT subscribed to the idea that the proliferation of nuclear weapons was exclusively a state-based phenomenon. As the early nuclear age appeared to have demonstrated, a country with nuclear ambitions was totally dependent on receiving the support of another nuclear power. Globalization has meanwhile refuted this assumption. Technical progress, the increase in the volume of international trade in general and of technology transfer in particular, the worldwide movement of goods via hubs such as large container ports that are difficult to control, and the advent of email and the internet have created a completely new situation. A state that wants to become a nuclear power is nowadays no longer dependent on help from other nuclear powers.

How individual states used these developments to their advantage is above all shown by the example of Pakistan. After the Indian nuclear test in 1974 Islamabad did its utmost to become a nuclear power as well. Since no help was to be expected from other nuclear powers, it decided to pursue a different path. For years it established working relationships with specific states and with companies all over the world in order to procure components for a military nuclear programme. Sensitive technologies were acquired via unsuspecting middlemen or through sham firms founded for this purpose. In order to increase the chances of evading export controls, similar parts were purchased from several manufacturers. Export documents were faked, and potentially “controversial” purchases were camouflaged by “hiding” them among large-scale imports of unimportant goods. Some imported equipment was taken apart after it had arrived in Pakistan, examined, and subsequently imitated. One also secured the help of friendly states. On behalf of Pakistan, Libya purchased some of the required uranium in Niger; Pakistan’s ballistic missile programme received help from North Korea. Pakistan finally attained its goal. In 1998, through a series of successful nuclear tests, Pakistan demonstrated that it was on a par with its Indian arch-rival.

If Pakistan had remained an isolated case it would have been possible to dismiss it as a regrettable exception to an otherwise well functioning non-proliferation system. However, the efforts of Pakistan to acquire nuclear technology and expertise had grave consequences. One of the principal actors of

the programme, the metallurgist Abdul Qadeer Khan, who was educated in Germany and The Netherlands, had used contacts to governments and businesses all over the world in order to build up an unparalleled proliferation network. In the space of about 20 years the “father of Pakistan’s nuclear bomb” supplied several states, including Iran, Iraq, North Korea, Libya and possibly also Syria and Saudi Arabia with virtually everything that was needed for the production of nuclear weapons, from centrifuges for uranium enrichment to blueprints for warheads. In this Khan made use of both private companies and specially conceived production locations in Malaysia, Turkey and South Africa. Deals were often struck via middlemen, and deliveries were camouflaged via third-party states.¹⁰

What had originally been an import network was thus transformed into an export network, and what had originally started with the approval of the state developed into a private market which operated increasingly without reference to the Pakistani government. It is no accident that George Tenet, the former head of the CIA, described A. Q. Khan as “at least as dangerous as Osama Bin Laden.” Khan’s increasingly complex network and his craving for personal recognition finally led to his downfall. After years of observation by Western intelligence services the network was exposed by the detention of the “BBC China” on its way to Libya in October 2003. Khan was placed under house arrest in Pakistan. In several states, including Germany and Switzerland, some of Khan’s collaborators were prosecuted. However, no one can tell whether this also means that his entire export network has been destroyed.¹¹

Yet even the end of the Khan network would not herald the end of proliferation. Developments in recent years reveal a new kind of cooperation between proliferators which keeps coming up with surprises. Thus North Korea and Iran have obviously cooperated not only in the nuclear field, but also in the development of ballistic missiles. The same is true of Pakistan and North Korea. The blueprints for centrifuges and warheads that are being offered for sale in certain circles are copies of Chinese or Pakistani designs. This means that the nuclear genie has finally escaped from the bottle. Proliferation has developed a momentum of its own. The dramatic consequences of this development became visible when Syria attempted to build a nuclear reactor based on a North Korean design—without notifying the IAEA and thus very probably as a first step towards a nuclear weapons programme. Israeli planes destroyed the facility in September 2007. IAEA inspections on the ground revealed traces of uranium. The nuclear legacy of A. Q. Khan is alive and well.¹²

The Nuclearization of Terror

Nuclear deterrence is an instrument of managing security relationships between states. It is essentially based on a rational cost-benefit analysis. The rationality of all key actors involved is a central precondition for deterrence to work. It is not an accident that many American nuclear strategists of the first generation were economists. And it is not an accident that all fairly plausible scenarios for a conflict in Europe were based on a crisis in which decision-makers were no longer acting entirely rationally. But by and large the mutual deterrent relationship in the Cold War seemed to be stable. According to the views held by orthodox security policy, states are very much interested in their own survival, and they will put this survival at risk only in the most extreme circumstances.

But what happens if there are actors who are not guided by such interests? Actors for whom religion or nationalism takes pride of place? Actors for whom the principle of classical political terrorism—to have many people watching, but few people dead—no longer applies? Such groups exist. The Japanese Aum sect, which in 1995 released sarin poison in the Tokyo subway, killing several people and injuring more than 1,000, possessed enough gas to kill more than four million people. It was only the amateurish execution of the attack which prevented a greater catastrophe. It was a fateful irony that followers of the cult had previously made an unsuccessful attempt to purchase a nuclear weapon and had subsequently bought a piece of land in Australia with the intention of mining for uranium. It was only after this venture had failed that they concentrated on the poison gas alternative.¹³

The Aum sect is now forgotten. A cult of death without a higher political goal does not constitute a permanent threat. However, things are quite different when it comes to Islamist fundamentalism. As a movement dedicated to opposing the “Westernization” of the Islamic world it is a long-term phenomenon. Moreover, it had declared war on the West a long time before the terrorist attacks of 11 September 2001. And it made no bones about the fact that in this war it would also employ weapons of mass destruction. The stigmatization of nuclear, biological and chemical weapons, an important civilizational achievement of Western thinking, is of no importance for Al Qaeda and about a dozen other terrorist organizations which are currently trying to acquire weapons of mass destruction.

Here, as is so often the case, Osama Bin Laden made the start when in a speech made public in 1998 he declared it to be the “religious duty” of every Muslim to make nuclear and chemical weapons available for the higher purposes of Islam. In fact three months before 11 September 2001 there was talk on the Al Qaeda website of an “American Hiroshima.” And nine months after

11 September Bin Laden's official spokesman announced via the Internet, "We have the right to kill four million Americans." A decidedly religious justification for the use of such an "Islamic bomb" was given in 2003 by a radical Saudi Islamist. In a voluminous report he gave reasons why Muslims, in response to certain American misdemeanours, would be justified in killing ten million Americans—including by using weapons of mass destruction. Whereas it is true that the number of ten million is not accounted for in detail, it is probably no accident that it happens to about the size of New York—the citadel of the Western civilization which they loathe.¹⁴

It may be tempting to dismiss such statements as the ravings of certain individuals or vacuous propaganda. Yet only a few weeks after the terrorist attacks on New York and Washington the Pakistani authorities arrested two nuclear scientists under the suspicion of having helped Al Qaeda in the attempt to procure weapons of mass destruction. The two Taliban sympathisers were convinced that the Pakistani nuclear weapons, which they themselves had helped to develop, were in the final analysis "the property of all Muslims." It is also certain that Al Qaeda and other Islamist terror organizations have attempted to acquire nuclear material since 1990, especially in the states of the former Soviet Union. The Clinton administration's "Operation Sapphire" vividly illustrates this. In 1993, when the Kazakh government attempted to dispose of 600 kilograms of "unclaimed" highly enriched uranium, Al Qaeda representatives were trying to bid for it. After applying discreet diplomatic pressure, the US managed to purchase the material—enough for 20 Hiroshima-type nuclear bombs—and took it out of the country. On this particular occasion Al Qaeda failed, yet it is rather unlikely that all other attempts to procure weapons of mass destruction or relevant components were similar failures.¹⁵

In this context one should not just think about the use of nuclear weapons. There are other less difficult ways of spreading fear such as the use of chemical agents, or placing radiating matter in densely populated areas. Another option is the detonation of a "dirty bomb," where a conventional explosive charge disperses radioactive material across a large area. According to a scientific study published in 2002, the detonation of a large "dirty bomb" in Manhattan would force the evacuation of the entire island and, according to the guidelines of the American environmental authority, it would make an area of several hundred square kilometres uninhabitable for a long time to come.¹⁶

The highly radioactive materials which are needed to construct a radiological weapon are nowadays available on the international black market and from the hundreds of medical, industrial and scientific installations and devices. In the US alone there are about two million sources of ionising radiation, and thousands of them are of a considerable size. They are used to kill bacteria in foodstuffs, for the sterilization of pharmaceutical products, for killing cancer

cells, for checking welding seams, in the search for oil, and for research purposes in nuclear physics and technology.

Radiological weapons are neither nuclear weapons nor weapons of mass destruction. They are weapons which are intended to cause mass panic. They utilize the popular fear of radiation which one can neither see nor feel. It is true that in order to construct a large radiological weapon of the size that was assumed for use in New York one needs considerable amounts of material and a great deal of experience with regard to the detonators and explosives. Yet nowadays every banana republic is capable of building a small "dirty bomb." All that is required is a certain mixture of oil and artificial fertilizer and a raid on the radiological department of a local hospital.

The existence of transnational proliferation networks does not alter the fact that building a real nuclear weapon continues to be an extremely difficult project that can only be accomplished by states with the right kind of infrastructure. However, events in the recent past demonstrate that the main obstacle to the construction of nuclear weapons is not the warhead, but the procurement of fissile material. Here the dissolution of the Soviet Union changed the situation in quite a dramatic way. Before the demise of the USSR it was practically impossible to acquire unauthorized highly enriched uranium or plutonium. Since then cases have repeatedly come to light in which dealers have offered for sale substances of this kind. It is true that they are often swindlers, yet in May 2003 the police in the Georgian capital of Tbilisi seized two containers with more than 100 kilograms of a radioactive mixture of caesium and strontium. At almost the same time a black-market deal involving 30 kilograms of caesium 137 was foiled in Bangkok. These and many other similar episodes show that there is a market for such substances.

There is yet another disturbing development. Since the 1980s radical Islamists have been trying systematically to tear down the limits which Islam places on the use of violence. The first step was the justification of suicide attacks. In Islam, suicide is expressly prohibited (Sura 4.12). Yet many radical Islamists circumvented this restriction by reinterpreting the assassins as "martyrs." Their argument was that the suicide which formed part of such a "martyr's death operation" was an act of veneration in the Holy War against the infidels. Osama Bin Laden went even further. In a declaration published in 1998 for which he had secured the support of several Muslim clerics, Bin Laden argued that killing Americans and their allies, whether civilians or soldiers, was the duty of every Muslim in every country. Bernard Lewis, the doyen of the Western study of Islam, has called this fatwa "a licence to kill." On 11 September 2001, 19 Al Qaeda terrorists made use of it.¹⁷

Through the globalization of suicide assassins and its religious justification by radical Muslim clerics Islamist terrorism has brushed aside all the tradi-

tional boundaries with regard to the use of violence. It is too soon to know the full implications of this uncompromising attitude to violence—which even condones the use of weapons of mass destruction against innocent people—for the stability of the multinuclear world of the 21st century. One thing, however, is obvious. The complicated relationship between Islam and weapons of mass destruction—and last but not least the ongoing crisis in Pakistan—shows that a debate about nuclear terrorism should not be confined to non-state actors. It also shows that the issues of interstate deterrence relationships can no longer be discussed solely in the classical categories of nuclear balance or rational deterrence theory. The nightmare scenario of a “Talibanization” of a nuclear-armed Pakistan is a reminder that the phenomenon of religious fanaticism may have nuclear implications which go far beyond the detonation of a “dirty bomb.”

Geopolitics, Energy and Non-Proliferation

Yet it is not only new actors, new technologies and a new fanaticism which are putting pressure on the non-proliferation regime and have led to the dawn of a “second” nuclear age.¹⁸ There is yet another reason that undercuts the assumption that the traditional non-proliferation policy may after all be able to cope with the current challenges. What is often overlooked in the public debate is the fact that the interests of the members of the UN Security Council diverge. Parts of the non-proliferation literature may ascribe to the NPT the status of an objective set of norms and regulations that transcend national interests, yet the NPT is in the final analysis no more than a mechanism administered by the United Nations, with the Security Council at the top. This is the place where the Treaty is interpreted and violations are addressed. And it is the political balance of power in the Security Council which shapes the policy in all sub-organizations of the UN, including that of the IAEA and its Board of Governors.

In the current case of Iran it has been possible to establish a common position of the “permanent five.” However, whether this common denominator is sufficient to agree on more far-reaching measures against the regime in Tehran is unlikely. As an important supplier of oil to China and as a close economic partner of Russia Iran has hitherto enjoyed the support of two members of the Security Council, which makes massive sanctions improbable. The case of Iran could thus mark the paradoxical reversal of the energy policy equation on which the NPT was originally built. Rather than assisting a country to cope

with its energy needs, the issue now is about whether to tolerate Iran's nuclear ambitions in exchange for continued access to its fossil energy supplies. This is a worrying trend. It suggests that upholding and enforcing the principle of non-proliferation will no longer be a matter solely of political and military considerations, but also increasingly determined by energy policy and economic interests. Once again, the seemingly binding global norm of non-proliferation turns out to be highly vulnerable to changes in the international system.

As unpleasant as it may be, international developments are working against the non-proliferation principle. Just as the Iran issue is nowadays inextricably linked with its status as an exporter of oil and gas, and Pakistan is needed as a partner in the fight against terrorism, the geopolitical significance of a cooperative India is simply too big in order to exclude permanently the attractive option of civil nuclear cooperation. The US-Indian agreement, which facilitates India's controlled access to civil nuclear technology and fuel while making it more difficult to transfer it to third parties, is thus a possible way of reconciling classical non-proliferation principles with new realpolitik necessities. It is not by accident that the head of the IAEA, Mohammed El Baradei, has welcomed the American-Indian agreement.

There are good reasons why the American-Indian agreement concentrates on the civil use of nuclear technology. In the third decade of this century India will probably advance to become the third-largest economy in the world. Nuclear power is absolutely essential in order to provide for the energy needs of this populous country in an environmentally appropriate way. The same is true of China and other states that are growing rapidly. They will all place their bets on nuclear power. This entails numerous technical risks, yet in view of global climate change the alternatives appear even more problematical, since conventional power plants would lead to an unacceptable emission of greenhouse gases. It is partly for this reason that the International Energy Agency, in addition to its plea for renewable energy, is calling for the construction of more than 1,000 nuclear power plants by the year 2050. In order to obtain a certain degree of independence, many of the states which operate these reactors will seek to acquire a complete nuclear fuel cycle.

Since the necessary uranium enrichment facilities could also be used to enrich uranium to a weapons-grade stage, it becomes clear why the energy question poses a completely new challenge for the non-proliferation regime. The reprocessing of plutonium will exacerbate the problem even more. Whereas it is true that it has to be carried out under the supervision of the IAEA, perfect verification is simply impossible. The five recognized nuclear powers are in any case exempt from IAEA inspections, as are states which are not signatories to the NPT such as Pakistan or Israel. Yet even certain states which are technically under IAEA supervision manage to get round the "safeguards." Thus Iran

cooperates incompletely and unwillingly with the IAEA, but only in the installations actually declared by Tehran. Like North Korea, Iran probably pursues its military programme at secret locations. And finally, not all the states in which nuclear power plants will be built in the years ahead may be or will remain politically stable. The implications of a breakdown of public order or perhaps a coup in a state that owns nuclear power plants and fissile material may be very grave indeed.

III. Political and Military Answers

So what should be done? For the liberal arms control community the case is clear. In their view, the non-proliferation regime represented by the NPT and its supplementary agreements is essentially sound. The root cause of the present crisis is seen to lie in the unwillingness of the Nuclear Weapons States to live up to their part of the NPT bargain and commit to real disarmament. According to this school of thought, the United States' selfish and contradictory policy bears most of the blame for the erosion of the non-proliferation regime. The US refusal to ratify the Comprehensive Test Ban Treaty, the obsession with "rogue states," the war against Iraq, the continuing search for nuclear military options, and, last but not least, the nuclear agreement with India have pushed the non-proliferation regime into a major crisis of credibility, which has made dealing with the (few) violators particularly difficult. In the opinion of this school, only a fundamental change of US policy offers a chance to repair the damaged non-proliferation regime.¹⁹

The charge that American "double standards" are the major cause of the non-proliferation crisis is easy to make. After all, no country can seriously claim to conduct a foreign and security policy that is entirely free of contradictions, least of all a country that carries most of the burden of maintaining international order. Moreover, if one assumes that the United States, as the world's strongest military power and the intellectual architect of the NPT, should act as a kind of trustee of the non-proliferation regime, contradictions in American policy are particularly serious.

Yet the true reasons for the crisis must be sought elsewhere. On the one hand they are implicit in the structural weaknesses of the non-proliferation regime itself, which despite its undeniable success was (and continues to be) far more dependent on global political constellations than many observers are willing to admit. Above all, however, the crisis is the result of numerous developments in international security since the end of the Cold War—developments which tend to overtax the classical non-proliferation regime. Too much has changed to enable one to continue to cling to a double fiction: the fiction that the non-proliferation regime which emerged under the specific conditions of the Cold War can retain its significance for global order in the 21st century without undergoing significant modifications, e.g. by supplementing it with certain bilateral initiatives or coercive military measures; and the fiction which is especially cultivated in Germany that a more conciliatory and unreservedly

multilateral American policy could help the damaged non-proliferation regime to recover its former glory.

Strategic Escapism. A World Without Nuclear Weapons

Even if opinions about the causes and structures of the second nuclear age differ significantly, all observers agree on one thing: The second nuclear age will be more dangerous than the first. For this reason, there is an urgent need for new answers. Yet as always when nervousness or even fear determine the political agenda, the propagated solutions are questionable. This is especially true of the answer which would solve the problem of the proliferation of nuclear weapons in what is undoubtedly the most logical and radical manner: the global abolition of nuclear weapons.

Ever since the advent of the nuclear age the call for global nuclear disarmament always had a naive and pacifist air. Its proponents failed to provide convincing answers to the three decisive questions: How does one get to zero? How does one stay at zero in a world in which the knowledge of how to make nuclear weapons continues to exist? And how can one provide effective deterrence without nuclear weapons? Whatever their moral integrity, the “abolitionists” regularly failed to surmount this pertinent political hurdle.

This is now going to change. The nightmare of an unpredictable multinuclear world has now converted many prominent realists into advocates of total nuclear disarmament. Since Henry Kissinger, Sam Nunn, William Perry and George Shultz have come out with the demand for the long-term abolition of all nuclear weapons, the vision of a nuclear-free world has become intellectually respectable. And almost as if one had merely been waiting to obtain the seal of approval of orthodox security policy, numerous experts are now succumbing to their disarmament impulses. Now that the US is on their side, what can still go wrong? In a world without nuclear weapons, if it could be attained, one would no longer have to bother with the inequalities between states which have nuclear weapons and those which do not. The threat of nuclear arms races and nuclear wars would disappear. And religious fundamentalism or terrorism would no longer have a nuclear dimension.²⁰

However, if one asks why the vision of a world without nuclear weapons is more realistic today than in the past, the answer will be rather sobering. Apart from the hope that a new US administration led by a charismatic President will turn its attention to this subject there is not much else that can inspire

optimism. And the closer one looks at the abolitionist conundrum, the more one realizes that the attention that is being paid to these suggestions has little to do with their plausibility, and much with the disappointment about the foreign and security policy legacy of President George W. Bush. To a large extent, the new optimism about abolitionism flows from a desire to return to a positive security agenda—something that had been woefully missing in recent years. However, the more the Bush era fades into the past, the more the flaws of “abolitionism” will become apparent. For a world without nuclear weapons requires much more than to persuade both the recognized and unofficial nuclear powers to give up their arsenals. Since such a world is only really safe if it can be ensured that no one can build or acquire such weapons at short notice, a global inspection system would be needed to which all the states in the world would have to accede. Moreover, the effectiveness of this system would have to be unprecedented. The experience with existing and less demanding verification regimes suggests that there is little reason to be optimistic about creating such a global inspection regime.

But that is not all. A state which cheats would immediately have to be called to account by the international community. The current case of Iran shows quite clearly how unrealistic such assumptions are. Since the five recognized nuclear powers, as permanent members of the Security Council, would have to supervise a disarmament regime of this kind one would need to ensure that none of them, if found guilty of cheating, would be able to prevent punitive measures against itself by using its veto power.

The civil use of nuclear power would have to be supervised and regulated in ways which for many states would constitute an unacceptable intrusion into their economies. The total amount of fissile material in the world would have to be brought under strict international control. In order to make a supervisory regime of this kind acceptable to sceptical states, some people go even further and suggest enlarging the UN Security Council in order to enhance its acceptance as the chief supervisory body, an idea which hitherto has repeatedly failed. And as even some disarmament enthusiasts recognize, the existing nuclear powers can be persuaded to eschew nuclear weapons only if their specific regional security problems have been resolved. In short, the concept of total nuclear disarmament is profoundly tautological. It only works if conditions have already been created which would render the possession of nuclear weapons superfluous in any case.

The realists around Kissinger know this only too well. If they nevertheless demand that the states which possess nuclear weapons should adopt the vision of a nuclear-free world, they do so because the formulation of a Utopian idea is a means to a pragmatic end: the conclusion of far-reaching US-Russian arms control agreements, the strengthening of the verification mechanisms of the

IAEA, measures to enhance the physical security of Russian nuclear weapons, the internationalization of uranium enrichment, and many more. Yet while abolitionist proposals may be merely a tactical calculus for Kissinger and his realist school, for others it means much more. Through Kissinger and his allies, calls for nuclear abolition have been stripped off their aura of sectarianism. The fact that practically all disarmament initiatives today approvingly quote these four elder statesmen and their allegedly enlightened views on nuclear matters indicates the kind of momentum that has been generated. The concept of total nuclear disarmament may well be a long-term idea and based on mutuality, but it immediately de-legitimizes Western security policy. The West is put under pressure to act while at the same time having to bear the blame if these efforts fail. In the final analysis even a debate about a positive goal such as nuclear disarmament remains a debate about nuclear weapons, i.e. weapons of mass destruction. Such a debate will inevitably highlight the destructive power of these weapons, thus raising fears which an open society will find difficult to cope with.

And this is not all there is to it. If the world without nuclear weapons is the goal, that is, if nuclear weapons do not possess any positive qualities, why think at all in terms of decades? Why not get rid of the nuclear burden immediately and thus move up a notch in moral terms as well? These are the kinds of argument that will be put forward—if not now, then at least once the global disarmament process starts to lose its momentum. After all, those who have made the demand for complete disarmament their guiding principle will never be satisfied with any intermediate steps. And the pressure on the nuclear arsenals of the West—and this is the only place where a public debate is actually possible—will continue.

Self-deception and Non-Proliferation

But are such thoughts not in fact rather obscene in view of the new opportunities which present themselves if the Nuclear Weapons States were to come out convincingly in favour of global disarmament? Is the willingness to give up one's own nuclear weapons, at least in the long run, not an acceptable price to pay if in this way one can make a significant contribution to global non-proliferation? Such are the arguments in the current non-proliferation debate. Yet a causal relationship between disarmament and non-proliferation has yet to be established. At any rate, the far-reaching nuclear reductions by the US and Rus-

sia after the end of the Cold War had no influence whatsoever on the proliferation of weapons of mass destruction in other regions of the world. Iran, Iraq, Libya and North Korea pursued their nuclear ambitions for their thoroughly individual reasons, just as South Africa and even Sweden had flirted with the nuclear option. Each case is special and unique.

Thus Iran will not give up its nuclear ambitions simply because the US now intends to pursue more enlightened nuclear policies, nor because the United Kingdom pretends that is interested in total nuclear disarmament, or because NATO intends to withdraw its nuclear weapons from Europe. Nor will others be very impressed by such steps. In Pakistan, where the nuclear smuggler A. Q. Khan is still revered as a national hero, people are unlikely to take to the idea of giving up the weapon for which they had once sworn to “eat grass.”²¹ The thinking in India and China is very similar, not to mention Russia, which has even re-emphasized the role of nuclear weapons in its security doctrine, threatens its neighbours with preventive nuclear strikes, and sustains a defence budget with a double digit growth rate. Israel can hardly afford to relinquish its nuclear capability without a comprehensive peace in the Middle East. This is all the more true in view of the fact that Iran will hardly be prepared to surrender the nuclear status that it has worked so hard to acquire. And for the Stalinist fossil North Korea, giving up the nuclear option would finally spell its demise in political terms.

It seems likely that the US-Russian arms control process will continue and that in this way the criticism levelled by the Non-Nuclear Weapons States against the Nuclear Weapons States’ lack of commitment to disarmament will be partially defused. The US’ ratification of the Comprehensive Test Ban Treaty would be another step towards dispelling the anxieties of the Non-Nuclear Weapons States. However, the global disarmament dialogue that many ask for will fail. The hope that the unjust global nuclear order can be overcome by transforming it into a just and non-nuclear global order is non-proliferation’s greatest lie and self-deceit. Reality is just as banal as it is painful. There will either be an unjust nuclear order, or there will be no order whatsoever. There are obvious parallels to the structure of the United Nations, where injustice has been institutionalized with a predominant Security Council and a less influential General Assembly. Although the search for a fairer arrangement continues, it is not likely to lead to a better alternative. After all, the dilemma remains that greater justice will come at the expense of the ability to act.

New Approaches to Non-Proliferation

Are there any ways beyond the political escapism of global disarmament to prevent the emergence of a multi-nuclear world? Naturally the NPT continues to constitute the central international framework for global non-proliferation. Unfortunately, adapting the provisions of the Treaty to new developments has proved to be rather disappointing. For example, the suggestion to make it more difficult to opt out of the Treaty has not met with approval. Proposals to internationalize uranium enrichment or to restrict access to reprocessing technology have recently received greater attention, since tighter global control of fissile material would make it more difficult for states with nuclear ambitions and terrorist groups to obtain these substances. Yet here again one must remain sceptical. The diverging economic and energy interests of many states will make the concept of an international "nuclear fuel bank," which has also been called for by Germany, difficult to implement.

However, some headway has been made with regard to tighter export controls. The Nuclear Suppliers Group (NSG), which currently includes 45 nuclear supplier countries, has in recent years continually refined its list of goods which are to be subject to export controls. Yet the voluntary nature of the agreements within the NSG and the limited number of member states mean that there are limits to this project. Furthermore, experience has shown that some NSG member states are also willing to tolerate shady deals by their national companies. Moreover, even though all UN member states are obliged to introduce national legislation that would make proliferation through transnational networks more difficult, the implementation of this process is proceeding rather slowly. Many states have held back because they are afraid of intruding unduly into the private economy.

In the meantime significant changes are taking place on another level. As early as 1992 the Heads of State and Government of the members of the Security Council issued a declaration according to which the proliferation of weapons of mass destruction constituted a threat to international security as set forth in Chapter VII of the UN Charter. Whereas it is true that this declaration did not have the legal quality of a resolution, other moves have now followed in its footsteps. Thus in April 2004, inspired by a US proposal to make proliferation a criminal offence, the Security Council adopted Resolution 1540 in which the declaration was incorporated verbatim. As a result the Security Council can react to a threat to peace and security that has been triggered by proliferation by approving coercive measures as stipulated in Chapter VII, irrespective of whether a state is a signatory to the NPT. The sanctions passed against Iran and North Korea show that the Security Council is following this rationale. Even if numerous differences between the members of the Security Council continue

to exist, a new chapter in non-proliferation policy has been opened. A regime is emerging that is based not only on international treaties, but is increasingly being defined and developed on the basis of resolutions.²² Yet further measures are needed in order to stabilize it. One such measure is the attempt to stop the seaborne smuggling of weapons of mass destruction or their components. This is the goal of the “Proliferation Security Initiative” (PSI), which more than 70 countries have now joined. In political terms the initiative underlines that the participating states are also prepared to implement the principle of non-proliferation by means of preventive action. But in military terms maritime coercive measures are now a reality, as was shown by the case of the centrifuges on their way to Libya on the “BBC China” alluded to above.

Pax Americana. Not an Outdated Model

Developments in the second nuclear age show once again that the widespread assumption according to which the non-proliferation successes of the past were primarily due to the NPT is at least questionable. Over the course of the last four decades almost all the states in the world have become signatories to the Treaty, yet this did not lead to a global non-proliferation norm. The reason why the vast majority of states never tried to procure nuclear weapons and why some in fact terminated their programmes is to be sought in a political and military cost-benefit analysis. To put it another way, for the majority of the members of the international community a nuclear status was not a goal worth striving for. Furthermore, as long as there are no serious security disadvantages, most countries also accept a certain degree of inequality between states which possess nuclear weapons and those which do not. However, if the basic political and military circumstances change, so does the cost-benefit calculation—and yesterday’s taboo can become a plausible option.

It was this fear which once prompted the Federal Republic to link its accession to the NPT to the continued existence of NATO and thus of the American nuclear guarantee. Other Western states did not set out their positions in such an explicit way, yet they too regarded the protection by the United States as the key factor that would determine their attitude vis-à-vis the nuclear issue. Germany itself did not expressly repeat its earlier reservations after the end of the Cold War, and the contemporary security debate creates the impression that the circumstances which applied in the past are no longer of any importance today. Yet the role of the US as guarantor of international security—and thus

also of non-proliferation—remains unchanged. American security guarantees are the *conditio sine qua non* of a predictable global order. This is primarily apparent in Asia. Japanese diplomats are now stating openly what just a few years ago was considered a taboo: For Tokyo, there is either military protection from the US or a national nuclear option. Taiwanese and South Korean attempts to inch towards a national nuclear option via a civilian nuclear programme were only thwarted as a result of massive American pressure. But Turkish analysts have also repeatedly emphasized that an Iranian neighbour with nuclear weapons could lead to a reassessment of their own security policy, including the nuclear issue. And should Iran go nuclear, an extension of the American “nuclear umbrella” to cover the Gulf region would probably be the fastest and most reliable way of reducing incentives for proliferation.²³

In many places the dream of a morally enshrined non-proliferation norm that transcends national interests continues to be dreamt. However, the current developments in Southeast Asia and the Middle East show yet again that nuclear non-proliferation remains to a large extent the result of American security assurances. The end of the Cold War has not changed this. Nor will hyping the NPT into a civilizational “enlightenment” project change it.²⁴ The nuclear abstinence of many states in key geopolitical regions is simply not a natural state of affairs, but the result of a predictable international system that is de facto guaranteed by the United States. It is thus no accident that the indications of a nuclear domino effect are apparent precisely in those regions where doubts about the effectiveness and reliability of the American security role are strongest.

“No Way Out.” Germany Must Help to Shape Nuclear Reality

Germany is a medium-sized non-nuclear power located on a continent that is home to several nuclear states, including the occasionally intractable great power Russia. And its neighbours in the Middle East are threatening to acquire nuclear weapons. On the one hand this poses new demands on relations with the US, whose security guarantees Germany continues to rely on and whose role as a global security provider will remain a central pillar of non-proliferation. However, it also poses new demands on German foreign and security policy. The end of the Bush administration, the insensitive policies of which were often used as a pretext to conceal one's own lack of ideas, makes it all the more urgent to review Germany's attitude to nuclear reality.

What are the requirements for Germany to play a part in shaping nuclear reality? The first and foremost requirement is to admit that Germany has nuclear interests which go beyond nuclear disarmament, and to realize that these interests are sometimes contradictory and thus cannot always be perfectly reconciled. At first sight, this may seem utterly banal, yet it poses a considerable challenge for German foreign and security policy. In a world in which Germany is assuming greater military responsibilities, the German gut reaction, which is not difficult to understand, is to try and adopt a middle-of-the-road and often also a conciliatory position. This frequently clashes with the necessity to make it quite clear where one stands. Clearly, as a Non-Nuclear Weapons State which enjoys the nuclear protection of the US, Germany cannot pursue policies which are uncompromisingly on the side of states with nuclear weapons or of those without them. However, German voting patterns in various international forums show that Berlin's desire to be conciliatory sometimes creates doubts about its seriousness. Germany keeps voting for resolutions in which the nuclear powers or even NATO's nuclear planning are condemned in one way or another. The justification, namely that these decisions are not legally binding and thus of only minor importance, does not appear convincing. The urge to play a conciliatory role leads Berlin to adopt a “wink-wink” approach to certain security issues. However, in the second nuclear age, this approach is doomed to failure.

Political Credibility

This leads on directly to the second precondition for Germany's involvement in the shaping of nuclear reality: the need to be taken seriously politically. This goal cannot be attained merely by adopting middle-of-the-road positions. Germany's unsuccessful attempts to obtain support for a permanent seat on an enlarged UN Security Council underscore this point. German willingness to shoulder large financial burdens within the framework of the UN and elsewhere has failed to generate staunch support for Germany's ambitions on the part of the international community. This is only partly due to the fact that the enlargement of the Security Council is a global political issue which has ramifications that go far beyond Germany and Europe. As long as Germany's security policy "track record" suggests that Berlin might (ab)use its seat on the Security Council predominantly as an instrument to prevent bold action rather than to facilitate it, Germany's UN ambitions will be unattainable. Germany's unusual role as a co-leader together with the "Permanent Five" in the talks with Iran will also do little to overcome this dilemma. From the very beginning it was clear to all concerned that Berlin, despite its emphatic declarations that it "wanted and had to" prevent a nuclear Iran, would never support a military solution. However, this support would have been the minimal requirement, at least in rhetorical terms, in order to remain credible in the face of Iran's uncooperative behaviour. Another example is Berlin's declaration that the security of Israel is part of the German *raison d'état*. Presumably not only in Israel one is tempted to ask whether and how Germany would actually honour such a commitment in military terms if Israel were ever to come under attack.²⁵

Military Credibility

This leads straight to the third precondition for participation in the shaping of nuclear reality—the willingness to face up to the military consequences of the second nuclear age. This means on the one hand that, if necessary, Germany will have to participate in coercive military measures against proliferators on the basis of Chapter VII of the UN Charter. On the other hand it means that Germany needs to defend itself. Since the only realistic form of providing security for Germany continues to be membership of a collective defence alliance, the alliance dimension of German foreign and security policy is of particular significance. However, Germany, which for four decades was a net recipient

of alliance solidarity, is visibly uncomfortable with the notion of demonstrating solidarity in an age where the issues at stake lie mostly beyond collective territorial defence. Not surprisingly, therefore, there is considerable hesitation in Germany when it comes to alliance issues which could have military consequences. This applies to new questions such as energy security, but also to numerous aspects of the Afghanistan mission, where the large number of German troops cannot hide the fact that their deployment is placing significant strains on German foreign and domestic policies. However, in the second nuclear age the influence that one can wield within an alliance is measured in a different way than during the Cold War. In view of the controversial nature of the political and military responses to the threat posed by terrorism and weapons of mass destruction, the military contribution which a particular state is able to make on paper is no longer the key yardstick of its influence. Ultimately, an ally's influence will be measured by its political willingness to support policies that may be controversial and carry risks. The Iraq debate witnessed the emergence of a new alliance hierarchy which put the emphasis on political solidarity rather than military capability. Thus, if a perceptive observer warns that within NATO Germany was becoming a "second France," this should make one stop and think.²⁶ In contrast to France, which sometimes indulged in idiosyncratic behaviour, yet whose willingness and ability to participate in military interventions on the side of the US has never been in doubt, Germany cannot afford to be seen as a querulous conscientious objector. It can afford this even less now that Paris is about to revise its ambivalent attitude vis-à-vis the Atlantic Alliance. If Germany wants to be able to count on NATO as a reliable protector even in the second nuclear age, Berlin must not confine its policy input to ritualistic calls for arms control and disarmament, but must support NATO's development into an Alliance that addresses the problem of proliferation in a comprehensive manner.

Nuclear Sharing

Participation in the shaping of nuclear reality also includes clarification of the question of how Germany intends in future to deal with nuclear sharing within the framework of NATO. The German government's 2006 White Paper states in one brief sentence that it supports the continued adherence to this principle. That this commitment came about only after a protracted struggle among the relevant ministries is an indication of how controversial this principle has now

become. For the Federal Republic nuclear sharing has traditionally meant playing a part in its concrete implementation through the deployment of nuclear-capable aircraft. Like all weapons systems these aircraft will eventually have to be modernized or replaced by new systems. Such a decision is not on the agenda at the moment, yet the new euphoria with regard to global disarmament has nurtured hopes that the early inclusion of these European-based systems in the disarmament process might avoid a difficult domestic modernization debate. In the light of the 2010 NPT Review Conference and especially given the expected criticism of nuclear participation by the NGO community, there is a growing temptation to give up these systems. This seems all the more likely in view of the fact that the original understanding of nuclear sharing is waning. Once regarded as a special feature of transatlantic solidarity and risk-sharing that was in Germany's national security interests, nuclear sharing is increasingly viewed as a military anachronism and an obstacle to disarmament. For this reason in particular some non-governmental organizations oppose nuclear sharing with a burning hatred which borders on the pathological.²⁷

The specific implementation of extended deterrence in NATO is not fixed and immutable. In other parts of the world the US nuclear commitment was neither dependent on theatre nuclear weapons nor on elaborate sharing arrangements. It would therefore be incorrect to state that the withdrawal American nuclear weapons from Europe would spell the end of extended deterrence. After all, defining what constitutes "credible" extended deterrence is ultimately up to the United States and its allies. If they were to agree that relying exclusively on US strategic systems would be enough from now on, this would be the end of the affair. However, it would also be the end of a special quality relating to the sharing of risks and responsibilities that lies at the heart of NATO and distinguishes it from other alliances. And it would be another step towards a "virtual" alliance policy in which alliance solidarity will be defined largely without recourse to military symbolism. That such a policy is not only out of tune with global military developments, but even the actual European realities was shown by Russia's military and political overreaction in the conflict with Georgia in August 2008. The central and eastern European states reacted by demanding a revision of NATO's defence planning and the establishment of US military installations on their territory. The importance of credible military commitments could hardly be articulated more strongly. Thus Germany should adhere to nuclear sharing as an expression of a defensive and inherently non-provocative means of Alliance solidarity and collective defence.

Transatlantic Solidarity

Another precondition for participating in the shaping of the new nuclear reality is solidarity with the US. Neither the military difficulties in Iraq nor the economic and financial crisis will change the fact that for the foreseeable future the United States will continue to be the world's strongest military power. Despite a considerable loss in prestige during the presidency of George W. Bush, the United States continues to be the predominant security provider. For despite the much vaunted rise of new powers such as China, India or Brazil, only America is able to co-opt other states into a coalition in order to pursue common goals. A critical appraisal of US policies must not lose sight of the fact that the US is still the country on which the greatest expectations rest when it comes to exerting global leadership. No other country—and not even the European Union—can play a comparable role in the years ahead. This is especially true with respect to the challenges of the second nuclear age. Without the political and military leadership of the US it will be impossible to deal successfully with proliferators. And without the “nuclear umbrella” of US extended deterrence, proliferation would quickly get out of hand. For these reasons trustful cooperation with America must remain an essential element of the Federal Republic's security policy. This does not exclude the possibility that Germany will have different views on certain matters, nor does it prevent Germany from articulating its differences in a forceful way. Yet if Berlin wants to make its voice heard in Washington, it must be perceived as a security partner who is also prepared to shoulder military risks, and not as someone who keeps harping on about nuclear disarmament.

Missile Defence

However, solidarity with America in the second nuclear age requires even more. It also requires Germany to realize that missile defence will be an integral element of a modern security strategy. Not only are nuclear capabilities proliferating; there is also a proliferation of their delivery systems. Still, when it comes to missile defence, the German “strategic community” is lagging behind international developments. When a Berlin policy planner admitted that the controversy about the American missile defence system in eastern Europe had made him painfully aware that his expertise on this subject dated back to the 1980s, he expressed far more than just his own views. Whenever the issue

is on the agenda, large parts of the German strategic community reveal how much they remain stuck in the obsolete paradigms of the Cold War. This is most evident in the rejection of missile defence due to its supposedly “destabilizing” effects—a view that demonstrates the extent to which German thinking is still wedded to US-Russian balance-of-power categories. This focus also explains the German tendency to ignore or even reject proliferation as the key rationale for missile defence and instead to buy into Russian arguments against such systems. In short, meeting legitimate Russian concerns—or what are believed to be legitimate Russian concerns—remains the prism through which Germany looks at missile defence. It goes without saying that Germany has an elementary interest in pursuing policies which do not raise Russian fears of encirclement. Yet any enlightened approach to the new nuclear reality should also include the ability to realize that consideration for genuine or imagined Russian sensibilities cannot be unlimited.

Berlin has deliberately encouraged the “NATO-ization” of the missile defence issue in order to turn an important issue into a process question and thus to deprive it of its potentially disruptive character. Yet like certain other European states Germany continues to tackle the unpleasant problem primarily with the help of vague phrases about disarmament. The necessity of tactical missile defence systems has been accepted, but strategic missile defence continues to be interpreted as a mere nuisance which ought to be disposed of as quickly as possible through arms control. Germany’s lack of interest in questions relating to international proliferation thus entails the risk of allowing Russia to impose on the West a permanent vulnerability to attacks from other states. If Berlin were to adopt such a position, disputes with Washington would be a foregone conclusion. In the end no argument will prevail over the traumatic experiences of the United States in the early years of the 21st century. In an age of the proliferation of weapons of mass destruction and their delivery vehicles, and against the specific background of “9/11,” a security policy which is based on one’s own calculated vulnerability is no longer feasible.

The European Option

Berlin should also be cautious about adopting a one-dimensional disarmament policy for genuinely European reasons. Even if one wanted to express one’s willingness to engage in disarmament primarily by admonishing the US, such a strategy would nevertheless be a de facto attack on the nuclear weapons status

of France and the United Kingdom. However, the idea that Paris and London would give up this international special status or would be prepared to surrender it at an early stage within the framework of a global disarmament process is so absurd that it should not form the basis of German policy. Both states are not only modernizing their nuclear arsenals. They have also, at least in rhetorical terms, extended the threat of nuclear retaliation to states which support terrorism.²⁸ Germany's interest in the progress of the European integration process requires agreement with its two most important west European partners on many issues. To undermine such agreement by pursuing a policy which calls into question the security identity of these two partners in order to bolster one's credentials vis-à-vis the Non-Nuclear Weapons States of the Non-Aligned Movement would not only be short-sighted in terms of Germany's policy in Europe; it would not yield any other tangible benefits.

Another reason which should caution Berlin to show restraint with regard to the nuclear status of France and the United Kingdom is the retention of the "European option." Several German governments as far back as the 1960s assumed that a united Europe would be a nuclear power. For this reason Germany became a signatory to the NPT with the proviso that this did not permanently exclude such a possibility. There are good reasons why the "European option" does not play a role in the current debate. Concerns at the end of the Cold War that American extended deterrence might wane have proved unfounded. Nor has the security dimension of the European integration process reached a point that would allow for a controversial debate about a future nuclear dimension of the EU. For these reasons Berlin repeatedly rejected French proposals to enter into a discussion about "concerted deterrence." The link between European integration and the nuclear issue remains a fringe issue brought up only by certain segments of the anti-nuclear movement. However, this does not mean that one can safely ignore the question of how a common EU foreign and security policy will deal with the nuclear dimension in the longer term. The nuclear status of a future Union continues to be the proverbial "elephant in the room:" Everyone can see it, no one can ignore it, and yet no one dares to speak about it. But even if the "European option" is no more than a virtual option, it must nonetheless be retained. After all, it is impossible to predict the future shape of Europe in a world with new nuclear powers.

Security Instead of Disarmament

A final precondition for participation in the shaping of nuclear reality is the ability to craft a meaningful non-proliferation policy. In this context one should recall that Germany's decision to phase out nuclear energy has changed the country's position in the non-proliferation framework. Until it decided to quit, Germany was a state without nuclear weapons, yet with a substantial civil nuclear industry. This made Germany a model example of how civil nuclear technology and military abstinence could be reconciled. Thus Germany was also living proof that the deal formulated in the NPT between the "inalienable right" to the peaceful use of nuclear energy and the specific right for the five recognized states to possess nuclear weapons did in fact work. Nevertheless Berlin can with some justice point to its conceptual contributions to the ongoing development of the nuclear non-proliferation regime. For example, Germany has made various proposals with regard to the internationalization of the nuclear fuel cycle and on tightening the provisions of the NPT. These proposals reflect Germany's genuine interest in a rule-based and thus predictable international system. In the EU framework Berlin is trying to raise global awareness of the significance of non-proliferation.

However, the new euphoria about global disarmament has led to another challenge for German non-proliferation policy. Even if there is much to suggest that the new optimism will soon give way to a hangover, the fact remains that many of the steps now being pursued, for example, the internationalization of the nuclear fuel cycle, the conclusion of a "Fissile Material Cut-off Treaty" or the Comprehensive Test Ban Treaty, are in the German interest. For this reason Germany should focus on these goals instead of indulging in lofty abolitionist visions. Such visions not only bear within them the seeds of their own demise; they also put Western security policy under pressure to produce results and raise expectations that simply cannot be fulfilled. This calls for rhetorical and intellectual discipline in approaching the issue of nuclear disarmament. Thus one should emphasize the long-term process character of arms control as well as the political preconditions for its success. In other words, Berlin must conduct a debate which centres not on disarmament, but on security.

A Security Debate without Taboos

These guidelines for a shaping role which might be played by Germany should not blind us to the fact that this role will be rather limited. On the one hand the Federal Republic, a state without nuclear weapons, does not have a great deal of influence on the behaviour of the nuclear powers. Above all, however, a shaping role presupposes that there is a will to shape things in the first place—a certain self-confidence which in the final analysis is nurtured by a security discourse without taboos. Yet Germany is ill-prepared for such a debate.²⁹ Numerous structural problems make an uninhibited discussion about current security issues rather difficult. The view that emerged in the Cold War, according to which the use of military power always signified political failure, has left deep marks in the German security discourse.

These structural problems include first and foremost a society that has largely tried to ignore “hard” security policy issues since the end of the Cold War. Conducting and sustaining a debate about new security threats in a society for which the “9/11” catastrophe in the final analysis has been little more than a set of television images remains immensely difficult, all the more so as for Germany these new threats have thus far remained largely abstract. Moreover, the German “strategic community,” which could support the government and the parliament in this debate, is not only unusually small for a country of this size, but to some extent very much in the grip of ideology.

But this is not all. The parliamentary proviso exposes German security policy to permanent scrutiny which can turn every important decision into a domestic political tightrope act. The result is an approach which attempts to cover a broad spectrum of views and for this reason shuns any focused discussion of German security interests. Such ambivalence towards the military dimension of security is also apparent in the armed forces. In contrast to other armies, which have always been intervention armies, the German Army is a direct reflection of German society’s difficult relationship with military power. While no one today still talks about Germany as being a “civil power,” there continues to be a widespread view that the military contribution of the Federal Republic to international crisis management should be largely confined to post-conflict reconstruction activities and peacekeeping—an exercise in international solidarity without direct reference to Germany’s own national security.³⁰

Despite these structural restrictions—or perhaps because of them—the Federal Republic needs a security debate commensurate with the 21st century security environment. Germany needs a culture of debate in which issues such as nuclear terrorism, proliferation or energy security can be discussed without charges that this is merely a pretext for an increase in defence spending or the introduction of new state surveillance measures. German Islamic scholar-

ship should not see itself simply as an “ivory tower” discipline, but should also tackle current issues such as Islamist terrorism.

Above all the debate must be open to the question of what a multinuclear world means for politics and society. In this debate it must become clearly apparent that the morally controversial but in fact almost perfect security of the nuclear balance of power in the Cold War has disappeared for good. The passive deterrence approach of the past, which offered a high degree of security, has been replaced by military missions with sometimes disputed legitimacy, uncertain duration and with an equally uncertain outcome. At present, this applies primarily to the terrorist threat from failed states such as Afghanistan. Sooner or later it will also apply to potential nuclear threats. The massive problems with any strategy that is based on pre-emptive or even preventive action has become obvious in the Iraq war. Yet these problems do not invalidate the fundamental logic of such a strategy. Once jihadist terrorists have finally managed to obtain access to nuclear weapons, a state that seeks to protect its citizens has no choice but to take preventive or pre-emptive action. In such a case, the preventive use of force will no longer be an expression of imperial power fantasies, but a security policy imperative.

In order not to be misunderstood: The target group of such a security debate in Germany is not primarily the proverbial “man in the street.” Despite what opinion polls may say, security policy continues to be largely a matter for the political elite. Thus awareness for new security realities must be raised first and foremost in those circles where key decisions about Germany’s security policy are being made, i.e. in the relevant ministries and above all in the German Parliament. This is where Germany’s national security policy as well as alliance policy will be decided. And this is also where decisions will be taken on whether and how Germany can face up to the challenges of the second nuclear age.

Conclusions. A New Social Contract

What was once almost absolute security has changed to become relative security. For the modern state, which in the final analysis derives its legitimacy from the fact that it is in a position to protect its citizens, this has far-reaching implications. The government will have to conclude a new social contract with the electorate. It will have to admit that in the age of terrorism and weapons of mass destruction it can no longer protect its citizens as well as in the past—and yet at the same time these citizens will have to give the state permission to use

force earlier and more comprehensively than traditional ideas of self-defence may suggest. The implications of these changes are far-reaching indeed—too far-reaching, perhaps, for a country which still perceives globalization merely as an economic phenomenon without security implications. Despite its participation in international military operations, Germany is still yearning for a security policy without risks or contradictions, and appears to believe that it has found it in vague declarations on disarmament. If Germany succumbs to this kind of thinking, it will accelerate its own marginalization in security policy. Ultimately, Germany's political room for manoeuvre is not determined by its denial of nuclear reality, but by the extent to which it plays a part in shaping it.

Notes

- 1 Bernard Brodie (ed.), *The Absolute Weapon: Atomic Power and World Order*. New York 1946; see also T. V. Paul, Richard J. Harknett et al., *The Absolute Weapon Revisited. Nuclear Arms and the Emerging International Order*. Ann Arbor 1998.
- 2 The term was first used in Joseph S. Nye, 'Nuclear Learning and US-Soviet Security Regimes.' *International Organization* 41.3 (Summer 1987): 371–402.
- 3 See, as one example among many, Rolf Mützenich, 'Atomare Schatten. Das zweite Nuklearzeitalter.' *Blätter für deutsche und internationale Politik* 9 (September 2008): 31–43.
- 4 At a press conference in March 1963 Kennedy declared, "personally I am haunted by the feeling that by 1970, unless we are successful, there may be 10 nuclear powers ..., and by 1975, 15 or 20." Press conference, 21.03.1963 (www.jfklibrary.org/Historical+Resources/Archives/Reference+Desk/Press+Conferences/003POFO5Pressconference52_03211963.htm).
- 5 See Albert Wohlstetter, 'Spreading the Bomb without quite Breaking the Rules.' *Foreign Policy* 25 (Winter 1976–77): 88–96 and 145–179.
- 6 See Christoph Bertram, *Partner, nicht Gegner. Für eine andere Iran-Politik*. edition Körber-Stiftung, Hamburg 2008.
- 7 Arnon Groiss und Nethanel (Navid) Toobian, *The Attitude to "The Other" and to Peace in Iranian Schoolbooks and Teacher's Guides*. Center for Monitoring the Impact of Peace, October 2006.
- 8 See Hans Rühle, 'Absichtsvoll zweideutig.' *Frankfurter Allgemeine Zeitung*, 09.10.2007.
- 9 See Michael Rühle, 'Nukleares Domino.' *Frankfurter Allgemeine Zeitung*, 09.02.2007.
- 10 See 'Nuclear Black Markets: Pakistan, A.Q. Khan and the Rise of Proliferation Networks.' *International Institute of Strategic Studies*, London 2007.
- 11 See Gordon Corera, *Shopping for Bombs: Nuclear Proliferation, Global Insecurity, and the Rise and Fall of the A.Q. Khan Network*. New York 2006; David Albright und Corey Hinderstein, 'Unraveling the A.Q. Khan and Future Proliferation Networks' *The Washington Quarterly* 28.2, 2005: 111–128.
- 12 See Markus Bickel, 'Hinweise auf geheimes Atomprogramm. Syriens unheilige Allianz mit Nordkorea und Iran.' *Frankfurter Allgemeine Zeitung*, 19.11.2008.
- 13 See Bruce Hoffman, *Change and Continuity in Terrorism*, manuscript, 17.04.2000, Lawson Terrorism Information Center, Oklahoma City, no

- date (<http://www.terrorisminfo.mipt.org/hoffman-ctb.asp>); Sara Daly et al., *Aum Shinrikyo, Al Qaeda, and the Kinshasa Reactor: Implications of Three Case Studies for Combating Nuclear Terrorism*, The RAND Corporation, Santa Monica 2005.
- 14 See Nasir Bin Hamd Al-Fadh, *A Treatise on the Legal Status of Using Weapons of Mass Destruction Against Infidels*. Mai 2003.
 - 15 See Graham T. Allison, *Nuclear Terrorism: The Ultimate Preventable Catastrophe*. New York 2004.
 - 16 See Michael A. Levi and Henry C. Kelly, 'Weapons of Mass Disruption.' *Scientific American* 77 (November 2002): 76–81.
 - 17 See Bernard Lewis, 'License to Kill: Usama bin Ladin's Declaration of Jihad.' *Foreign Affairs* 77.6 (November-December 1998): 16–19; Hans und Michael Rühle, 'Lizenz zum Töten.' *Internationale Politik* 63.2 (February 2008): 102–110; Noah Feldman, 'Islam, Terror and the Second Nuclear Age.' *New York Times Magazine*, 29.10.2006.
 - 18 See Paul Bracken, 'The second nuclear age: how much has changed, how much remains the same?' Yale University, 17.11.2002 (<http://www.nautilus.org/gps/scenarios/BrackenSecondNuclearAgeCEIP2002.pdf>).
 - 19 See Harald Müller, 'Regime kaputt.' *Internationale Politik* 61.8 (August 2006): 16–23.
 - 20 See Henry Kissinger et al., 'A World Without Nuclear Weapons.' *The Wall Street Journal*, 04.01.2007; and 'Toward a Nuclear-Free World.' *The Wall Street Journal*, 15.01.2008.
 - 21 A phrase coined by Pakistani Foreign Minister Zulfikar Ali Bhutto in 1965. See Peter R. Lavoy, 'Nuclear Proliferation over the Next Decade: Causes, Warning Signs, and Policy Responses.' *Nonproliferation Review* 13.3 (November 2006): 438.
 - 22 See Michael Rühle, 'Enlightenment in the Second Nuclear Age.' *International Affairs* 83.3 (May 2007): 511–522.
 - 23 See Lewis A. Dunn et al., *Foreign Perspectives on US Nuclear Policy and Posture*. Science Applications International, McLean, December 2006.
 - 24 See the revealing controversy between William Walker, who interprets the NPT as an "enlightenment" project and several critics of this approach, *International Affairs* 83.3 (May 2007).
 - 25 Chancellor Merkel at the Munich Security Conference, 04.02.2006 (<http://www.securityconference.de/konferenzen/rede.php?id=170&sprache=de&>) and to the Israeli Knesset, 18.03.2008 (<http://www.bundesregierung.de/Content/DE/Rede/2008/03/2008-03-18-rede-merkel-vor-derknesset.html>).
 - 26 Karl-Heinz Kamp, 'Deutschlands Einfluss in der NATO schrumpft.' *Frankfurter Allgemeine Zeitung*, 14.06.2008.
 - 27 See, as one of many similar publications, *Visible Intent. NATO's Responsibi-*

lity to Nuclear Disarmament. Middle Powers Initiative Briefing Paper, New York, January 2008.

- 28 “It is true that our deterrent would not deter or prevent terrorists. But it is bound to have an impact on governments that might sponsor them.” Prime Minister Blair on 04.12.2006 (http://news.bbc.co.uk/1/hi/uk_politics/6207584.stm); see also the speech given by President Chirac in Brest on 19.01.2006 (http://www.elysee.fr/elysee/anglais/speeches_and_documents/2006/speech_by_jacques_chirac_president_of_the_french_republic_during_his_visit_to_the_strategic_forces.38447.html) and the press conference given by Chancellor Merkel and President Chirac on 23 January 2006 in Versailles (http://www.bundesregierung.de/nn_1516/Content/DE/Mitschrift/Pressekonferenzen/2006/01/2006-01-23-pressekonferenz-mit-bundeskanzlerin-merkel-und-praesident-chirac-am-23-januar-in-versailles.html).
- 29 See Eric Gujer, *Schluss mit der Heuchelei. Deutschland ist eine Großmacht*. edition Körber-Stiftung, Hamburg 2007.
- 30 See Michael Rühle, ‘Am Rubikon der Kampfeinsätze.’ *Frankfurter Allgemeine Zeitung*, 04.02.2008.

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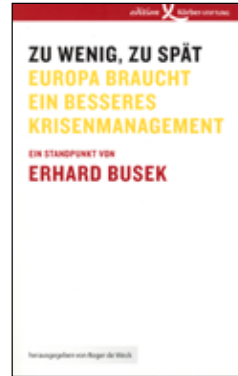
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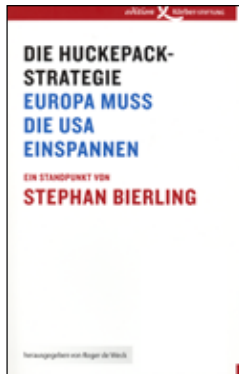
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