



## IPI POLICY FORUM

# Security Without Nuclear Weapons: Challenges and Opportunities

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International Peace Institute  
Trygve Lie Center for Peace, Security & Development

**Chair:** **Edward C. Luck**, *Senior Vice President for Research and Programs, International Peace Institute*

**Speakers:** **David Cortright**, *Director of Policy Studies at the Kroc Institute for International Peace Studies, University of Notre Dame, Indiana*

**Raimo Väyrynen**, *Professor, former Director of the Finnish Institute of International Affairs*

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**Ed Luck:** Welcome everybody. I'm Ed Luck from IPI and if you haven't been to the Trygve Lie Center before, welcome. We're pleased to have you with us. We have a very important topic and two quite dynamic speakers who've produced a, I think, quite fascinating mini book, if I can put it that way, in an Adelphi Paper. And let me just give one word of advertisement and then a little bit about ground rules and then we'll introduce our speakers and get right to it.

In terms of advertisement, IPI has hosted a series of round table meetings, I think, since about last June among the member states. I think we had about 20-22 member states who were part of it in preparation for the NPT Review Conference. And they're basically off the record meetings where we could talk fairly frankly about their expectations and we went through a series of issues and had a number of background papers prepared by our staff in terms of the subject areas and then put those together into a little publication that I think we've just put out in just the last few days on some of the big issues before the review conference. So if anyone's interested, I'm sure we have some copies back there and I think there are some around the table as well.

Also we have another advertisement I'm afraid, which is a paper we put out last year on weapons of mass destruction, which is part of our Coping With Crisis

Program which is quite a broad program which Francesco Mancini heads, who's over here to my far right, I guess. And that was a product of a series of discussions, round tables of member states and outside experts coming together. I should say on the NPT review conference, we also had several secretariat people participating at the same time. The one thing I wanted to mention in terms of administrative roles -- normally, around table up here, they're under the Chatham House Rule, which is non-attribution, but today this is an open meeting and you can use the materials as you like and -- I think speakers want to be as transparent as possible and on an issue that obviously is a concern to everyone.

I must say I found this book -- this Adelphi Paper -- to be particularly fascinating, because I haven't worked these issues heavily for a number of years and it's very interesting to go back and see how things have changed, and I think there's a lot of ideas here that some of us 10 or 15 years ago would have thought might have been pie in the sky and now it seem to become rather accepted wisdom. So the world does change and that's an encouraging thing, especially in this area. As I understand it, this stems in part from a meeting held last October at the Finnish Institute for International Affairs. Finland's been a very good friend of IPI and we're delighted to be able to host this meeting today.

Now, for many of you, our two speakers -- and there are a couple chairs here if anyone wants to join the table. And more tables -- more chairs behind here if you get a better view that way. Our two speakers are very well known in the arms control and security community. They've done a lot of good work on lots of issues over the years. I don't know which one I met first or how many decades ago that was, but in both cases it's been a long time.

Let me first introduce Raimo. I told him that I was going to undoubtedly butcher his last name. Let's try Väyrynen. I think at least he might recognize it slightly. But Raimo I know I can get right. Raimo has a long career in academics and in policy advising. He had four decades as Professor of International Relations and Dean of the Faculty of Social Sciences at the University of Helsinki. He was also Professor of Political Science and Director of the Joan B. Kroc Institute at the University of Notre Dame, and he has stepped down from that position. But he has written on all sorts of things having to do with international relations and international security and always in very interesting ways. He'll be followed by David Cortright on my right who is Director of Policy Studies at the Kroc Institute at the University of Notre Dame. He is someone who doesn't need much introduction in the U.N. community because the books that he and George Lopez have done on sanctions and smart sanctions and smarter sanctions and how are smart, smart sanctions doing, are really classics in that area and everyone uses them from class work to advice within in the secretariat. David's worked on many, many other pieces as well, but those are certainly among the more prominent ones for the U.N. community.

So they make some comments to start the discussion and then we'll continue until 2:45. And if you want to get some more food or coffee or other things, you're certainly most welcome to do that. And, again, for those of you looking for places, there's one more place at the table and some room behind there.

So without further ado, let me turn it to you Raimo -- and thank you for giving us this opportunity.

**Raimo Väyrynen:**

Well, thank you, Ed, for the introductions and thanks for the Institute for providing these facilities for this event. David and I are going to speak quite briefly, though when you know that in academic sense at this time I'm going to speak briefly, you

should become a bit worried. But I hope I can stick to my promise. I would just say a couple of words about the background of this report. As the chair said, I used to work for nine years at the University of Notre Dame at the Kroc Institute and David and I have been working for close to two decades together on various projects. And I would say that this is the culmination of our work corporation so far. You will never know what will come in the future. But, indeed, the Kroc Institute at Notre Dame and the Finnish Institute of International Affairs have been collaborating on this project. We organized -- set a conference in Helsinki last October. We had quite a number of experts there, including policymakers like Gareth Evans, William Perry and Margaret Beckett. And though this report is an independent report, it obviously, was stimulated greatly by the conferences and the papers that were commissioned for the -- for the conference. Before going very quickly into substance, let me just thank not only the two sponsoring institutes, but also the IISS in London. We had very good professional collaboration with Mark Fitzgerald and Tim Huxley and I think we both are surprised how quickly they produced the report.

And advertisements are, obviously, permitted here, let me just say -- at one point, the Finnish Institute of International Affairs, which is paying my way here has invested some energy and resources in this particular area. There's also another report called the Nuclear Free Security, which Dr. Tarja Cronberg has produced. And Tarja is over there. So if you want to talk with her on her report, she certainly will be available.

A key word which David and myself had been using in this report is "nuclear realism". And perhaps nuclear realism -- and David will speak more on this but, first, nuclear realism means two senses of the word. It's realism to -- to try to cut back even down to zero nuclear weapons in the world, but it has to be done in a realistic way. In other words, in a manner that is acceptable to the key players. I mean, in fact, one of the big challenges is how to design a political process that makes it possible to move towards nuclear zero. We are -- and there are obviously several people here who are much more knowledgeable of what's going on in the review conference than I am, but we all know and I happen to be a member of the Finnish delegation in the first NPT Review Conference in 1975 and I think ever since the close connection between nuclear disarmament and non-proliferation has been accepted, and then the peaceful access with the peaceful atoms, so to speak, has been the third pillar of the regime. The connection I think between the nuclear armament and non-proliferation is still very strong. It's a condition for strengthening the regime.

We are now in a situation that -- indeed to the leading nuclear weapon powers, of course that is Russia and the United States, I think are seriously trying to create political conditions for a successful review conference. The recent treaty between Moscow and Washington, the Nuclear Safety Summit here, and plans to continue the cutbacks in the strategic arsenals, I think, hint in this direction. But I think there's also a widespread feeling that this is not enough, that this is just the beginning, that more has to be -- or more accomplishments have to be reached. There need to be further agreements between Moscow and Washington, and not only about strategic delivery, vehicles and warheads, but also in a more comprehensive agreement. There was yesterday another seminar that the Finnish Mission sponsored on the tactical or non-strategic nuclear weapons in Europe. And it became very clear that it's not -- well, it's a complicated issue. But if you want to make real progress, you have to consider and include all types of nuclear weapons, not just the strategic ones. Not least for the reason that in Europe there are countries that feel to be threatened by tactical nuclear weapons.

Very few of us could expect say five years ago that we would be seriously talking about the abolition of nuclear weapons. The turn of events has been quick and I would say unexpected in many ways. Why are we in this situation right now? Well, we, of course, might think of personalities, George Shultz, Barack Obama, the German-British-Norwegian teams which have sort of repeated the call of the - of the "Gang of Four" in *Wall Street Journal*, but I think the roots are deeper. And the roots go, in fact, to the changing structure, international order, international relations.

During the cold war, we had two main nuclear weapon powers. We know those powers, which were involved in a bilateral and bipolar confrontation, where, in fact, the bipolar order and nuclear deterrence and MAD, so they reinforce each other. And the bipolar system somehow kept the nuclear weapons under control, while the fear of nuclear war reinforced by bipolarity at the same time. Now, this kind of a clarity is gone. I mean not only is the power resources in the international system redistributed, new center powers are rising, new nuclear -- different powers are emerging, though fewer than what we expected, say in the late 60s, 1970s. But I think my point is here that the nuclear weapon capabilities and nuclear deterrence and the distribution of power do not reinforce each other in the same manner as they did during the cold war. The international order is becoming more fragmented. Nuclear deterrence has become less tangible. It is sort of dispersed in the new power constellation that we have. There are more potential enemies. The nuclear deterrence cannot be directed at certain actors in the same way as was the case in the past and then not only multi-polarity, but we have a kind of non-polarity in the international relations, and I'm referring to the rise of non-state actors and potential terrorists organizations acquiring nuclear weapons.

So it seems to me that the nuclear weapons don't count for the same degree of influence and clarity for the leading powers than they did in the past. That the leading powers, particularly U.S. and maybe to less extent Russia, but both of them have come to realize that nuclear weapons don't serve their security and this is for influence in the same manner as they did before. And, therefore, there has been -- there is an effort -- and I hope it will continue -- to sort of gradually reducing the nuclear weapon capabilities and their role in international relations when they can resort to other power resources -- other economic types of resources. So nuclear weapons don't serve the same role as instruments and influence as they did in the past. So there are sort of structural explanations for what we are witnessing right now. But certainly -- and that's one element of nuclear realism. We realize that movement towards nuclear zero will not be easy at all.

First the gradual reduction of nuclear weapons, if that will happen, will affect the perception of relative power in the world. Those countries, in particular U.S. and Russia for the time being obvious -- there are other powers that will perceive that they actually are giving away a kind of power, a destructive power they had. And there obviously are countries that are willing to utilize this perception of the relative weakening of the leading powers. And sometimes those countries -- in the report I think we use the term "desperate countries" -- are concerned for understandable reasons about their security. Or they try to acquire asymmetric benefits by getting access or by developing even a small arsenal of nuclear weapons. In other words, the power politics, so to speak, will not cease or disappear when the nuclear weapons are further reduced in the future.

It's also quite clear -- and we deal with that issue in one chapter of the report -- that regional conflicts are closely connected with the nuclear arms races. I think it's unrealistic to think that we can stop the risk of nuclear proliferation and accumulation of arsenals, say in the Middle East and South Asia, unless there are more durable solutions to the Kashmir conflict, to the Israeli-Palestine conflict and so and so forth. So, in fact, the continued reduction of nuclear weapons must be connected with the strong efforts to find more, as I said, durable solutions to regional conflicts. Perhaps I could -- and one point on the structure of the international order, which I forgot to mention, and it's connected with my earlier point that while the old cold war order was bipolar -- MAD type of nuclear deterrence, it seems that the nuclear order is more and more organized into triads. During the cold war, we had U.S.-Soviet-China triangle. The China tip of the triangle was definitely, and still is weaker than it used to be. Now we have a China-Pakistan-India triangle. We might in the worst of the circumstances, have a Israel-Iran-Syria triad in the future. And I think this triadization of nuclear relationships means that there are more opportunities for coalitions, maybe shifting coalitions. There's more uncertainty. And, again, the world of nuclear proliferation becomes less manageable than it used to be. So this might be one additional reason why there is a search for lower levels of nuclear weapons.

And let me add two more points before I finish. The world today is still built to quite a large extent on military alliances, in particular in Europe, but also bilateral alliances in East Asia for instance. And there, of course, a kernel of a nuclear -- of a military alliance are security guarantees provided by the leading powers to the smaller ones. And thinking of NATO, probably in the foreseeable future it will continue to be a nuclear alliance. But there are important differences within NATO. We know that the kind of German element together with some other government, Western European governments have actually demanded the withdrawal of U.S. tactical nuclear weapons from Europe, while on the other hand, Poland and border countries, for instance, consider those weapons to be an assurance or a guarantee for the credibility of U.S. deterrence within NATO. So -- and there are then since I was last year in Japan and met a few people -- experts there, and they were actually worried about the Obama Administration's policy because there was a feeling that if the U.S. starts cutting back significantly on nuclear weapons, then the relative influence of China will rise and Japan might feel somehow threatened by this new equation.

I could give more examples, but this is an indication that when the perceptions of relative power, perceptions and the credibility and security assurances is changing as a result of cutbacks in nuclear weapons, problems arise that have to be handled and that's, I think, part of the nuclear realism, that we have to have a sort of integrated approach where the security perceptions of individual countries, for instance, have to be taken upon. And perhaps in a broader sense what do we mean -- what do we need between nuclear driven powers to start with is a new era of trust and transparency.

Just the lower you go on the level of nuclear weapons, the more concerns there will be, as I've been trying to explain, and, therefore, trust, transparency and security assurances gain, you know, gain more in importance. And perhaps we are coming here to the face where the old idea of confidence -- security and confidence building message have to be revived, in particular between the nuclear weapon powers and the members of their alliances. Because unless you have more transparency and predictability as to the capabilities of your adversaries, and maybe of your friends as well, you really can't expect to make progress in movement towards zero. And as a very final point at this very obvious point, but I think it needs to be stated here, is that without stopping the nuclear

proliferation, we can't have the hope of a nuclear-free world. If more countries will acquire nuclear capabilities, even modest ones, I have difficulties to see how countries like the U.S., Russia and other nuclear weapon powers will stop in lodging or refashioning their arsenals or cutting back their arsenals. So the old equity syndrome which I studied in connection between nuclear disarmament and non-proliferation I still see as true today as it was in 1975. There are lots of other points, but I hope David will have all the rest.

**Ed Luck:** That was fascinating. Thank you. A lot of very important issues on the table and I don't know if everyone has as many questions as I do now that you've stimulated, we're going to have a very lively discussion. David, I assume you'll provide all the answers now. Right?

**David Cortright:** Right. Thank you, Ed. And thank you to IPI for hosting us. Also want to express my thanks to the Finnish Permanent Mission to the U.N. for helping to support this initiative. And to the Finnish Institute for hosting the conference in Helsinki. I also think it's important to offer thanks to the person who helped Raimo and me in the writing of this book. And I think it's fair to say without his help we wouldn't have been able to complete it and that is our Research Institute -- the Research Assistant at the Kroc Institute, Elliot Fackler. Elliott is sitting over here and really was fantastic help in this process.

At the Helsinki conference, former British Foreign Secretary, Margaret Beckett gave an address in which she talked about reaching nuclear zero was once an aspiration and now it's becoming policy. It's often been seen as a moral ideal, but it's becoming a practical reality and that's really the theme of our book as Raimo has pointed out. In my remarks at the conference, I suggested that the argument for reaching nuclear zero can be summarized in three words -- must, can and should. We must get rid of nuclear weapons, we can and we should. The must is pretty clear from what Raimo was mentioning with other -- others of us know. It's not possible to achieve nuclear non-proliferation unless we also have disarmament. And the threats of non-state actors of proliferation are grave in the international arena and they must be addressed and they require that the direction of nuclear possession goes down to zero.

We can eliminate nuclear weapons partly because of the new political momentum that exists around the statements of the various world leaders, the initiatives of the former officials, and also because of some of the points that I'm going to address shortly in terms of the practical steps. And should -- we should eliminate nuclear weapons because of the overriding moral and ethical principles involved. We all know that nuclear weapons are instruments of mass annihilation. They are not really instruments of war. They violate every ethical principle of proportionality and discrimination and cannot be justified under any moral or political doctrine as just instruments of achieving political results.

Let me focus on the "can", because that's our point to try to understand what steps are needed. We know there are many obstacles as Raimo pointed out. So many political solutions need to be achieved around the world. It'll take time. But it's important for us to try to conceptualize how we would get there as we grapple with these difficult challenges and to essentially sketch out a road map, a series of landmarks that will indicate to us that we are achieving progress. The first is really a conceptual one and it is a recognition that security considerations are the number one concern that drive states to want to have these weapons and that are actually the reasons why increasing number of states have chosen not to develop nuclear weapons. In the volume, we look at the cases of more than 30

states that either had nuclear weapons at one stage or another or were considering the development and were actually in the stages of the development that have chosen to give up these weapons -- the many cases of nuclear reversal. And the overriding reason, the primary reason for almost all of these actors was a recognition that their security would be enhanced, would be more assured by getting rid of these nuclear weapons programs or the actual possession. And these security enhancements were seen in the context of regional problems, but in every case it was the recognition that security is enhanced by getting rid of these weapons. And the same thing has to be understood as the basic requirement for preventing proliferation and for achieving disarmament always moving towards enhanced security regionally and globally.

Now, in terms of this road map, one of the things we understand is that there will need to be progressive reduction to a point which former Ambassador James Goodby and Sidney Drell at the Hoover Institution have described as the vantage point. It's a state of minimum deterrence. Most experts would argue 100, 200 weapons. It's the point where the U.S. and Russia have to reduce so that their weapons are more or less equivalent to those of the other nuclear weapons states. It's a point where then the states can begin to consider a multilateral process involving all the nuclear weapons states and can steadily move down in a mutual fashion towards zero. At zero, the marker is an agreement, an international treaty, a convention which prohibits any possession or development of nuclear weapons. It won't, of course, guarantee that no cheaters or violators will be around or come to that, but a prohibition agreement is absolutely crucial in order to strengthen the international legal authority to then act against those who would violate such an agreement.

As states move towards zero, they begin to reach the state of so-called virtual deterrence. Now, much has been written about this, many volumes or different ways of defining virtual deterrence, but it addresses the number one objection that is so often raised when we talk about the question of nuclear disarmament. You can't uninvent nuclear weapons. It's foolish to think that you can get rid of these weapons. Well that's, of course, true, but it doesn't mean that it's impossible to develop a program for reducing and eliminating deployed nuclear weapons. And, in fact, the very possibility that nuclear weapons can be reconstituted, the knowledge, the materials will always exist in human history, that very possibility can become a kind of weaponless deterrence, a virtual deterrent. Many have written about this, Jonathan Schell in particular has developed these ideas quite significantly. The Hoover Institution group had a consultation recently with many leading scientists. I was at CSAC just a couple weeks ago and met with one of the top nuclear weapons designers at Los Alamos and he talked through the technicalities of how it might be possible to have a kind of a mutual agreement internationally where states could recognize that they have potentials and have protocols for how in a worst case scenario they might be able to reconstitute. So all of this is a recognition that even when you eliminate nuclear weapons, you don't eliminate the potential of nuclear weapons, or as Jonathan Schell has argued, that there are stages beyond zero so to speak, where some capacity for reconstitution may in fact become a kind of virtual deterrence. Working all of this out, of course it will be enormously complex and difficult, but the strategic concept I think is sound but it needs to be tested and thoroughly explored.

A further stage is to address the question of missile defenses. Now, all of us who've worked on disarmament over the years have come to recognize that missile defenses are a hindrance to arms control. In a stage where nations

depend upon mutual deterrence, missile defenses undermine that deterrent capability and are, therefore, destabilizing. But, again, as Jonathan Schell and others have recognized, if we are at a stage where nations are committed to zero, there are possible formulations of defenses that could actually enhance security. And it actually goes back to Ronald Reagan's vision of shared defenses or cooperative defenses. Reagan's concept was kind of simplistic, but there was a core of truth to it that he offered U.S. would share missile defenses with the Soviet Union and with other nations as a reassurance against cheating against rogue actors who would try to violate a nuclear abolition agreement. The basic concept, I think, does require attention and should be thoroughly explored. Now, we know there's lots of technical problems here as well. The actual demonstrated technical capacities and missile defense are highly questionable. On the other hand, it's quite clear politically that many states give a high degree of credence to missile defenses, and so whatever their technical limitations they seem to have high political value. There are also lots of technical complexities in terms of sharing defenses. There are initial discussions as you know between the U.S. and Russia about possible tactical missile defense cooperation vis-à-vis potential threat from Iran, and the technical issues are enormous. But at least there should be an initial recognition, we argue in the book, of the potential strategic value of shared defenses. And much work should be done to explore this concept, and, yes, even this initial cooperation or discussion of cooperation that's underway between U.S. and Russia on tactical defenses could be an important step forward. And, in fact, one of the follow-up steps from our Helsinki conference and this volume is an effort that we're starting now to set up a task force with U.S.-NATO, officials and researchers on one side and Russian officials on the other and think tanks to look at some of the strategic political concepts and see what further steps can be made to move towards more consideration of shared defenses.

Ultimately, the best assurance and the most important aspect of a road map towards nuclear zero is enhanced political cooperation. As Raimo mentioned, the greatest security comes from improved political relations. In the 1980s there was the Commission on Cooperative Security. Gorbachev later picked this up and began to use it working from the ideas that were developed in the Palme Commission and there's an important truth to this that the security of nations is greatest when they work together to address mutual problems and especially to deal with the nuclear threat -- the proliferation threat, we know, as the meeting across the street has demonstrated, that international cooperation is absolutely essential. So as states can move towards greater political cooperation, they can feel more reassurance, less security problems and will be in a better position to understand that, as so many states have already understood, that nuclear weapons do not confer a security influence, quite the contrary. And that states are more secure by getting rid of these weapons. Thank you.

**Ed Luck:**

Oh, terrific. Two fascinating presentations and we have -- oh, 55 minutes for discussion. So that's terrific. Let me just at the beginning introduce François Carrel-Billiard who was the co-author of this publication of ours and organizing this roundtable on the NPT review. He's our point person on these issues, but we didn't think he was going to get back in time for the meeting, so it's good to see you here.

I won't even try to structure this conversation because one, that wouldn't be very helpful and two, no one would pay any attention. But let me suggest three possible things that might help organize our thinking about this a little bit, stemming very much from what Raimo and David have just said. One is the

question of the geopolitical context. And they both made interesting comments about it and I think Raimo's reference to non-polarity, I didn't think it was going to be about non-state actors and terrorism, I thought it was going to be lack of a leader -- a poll to which others would be attracted. I guess in some ways, Obama and the U.S is trying to provide that poll. But are others going to follow? I mean have they really, for example, made the Russians make significant concessions so far? And your comments also, Raimo, about perceptions of relative power, is there some leg in terms of those perceptions over time and could that be something of a problem?

And David, on your must, can, should, I certainly -- I don't think anyone in this room would disagree with that, but FDR had an old saying, you know, when someone would come in to try to convince him of something, particularly if he completely agreed with the person, he'd say, okay, now, you've convinced me, now, make me do it. In other words, make the politics right so I have no choice but to do what I want to do and that I can do what I want to do. And I -- I wonder a little bit if we're in a bubble with the Obama Administration. You know, the Republicans are after him on domestic issues. Some day they may discover the foreign policy issue and this might be one of the first ones to have some problems. One thinks of the CTBT and trying to get the advice and consent of the Senate on it, you know, are we even in the U.S. in a good position on this.

The second set of issues which I thought were quite fascinating is whether one needs an agreement or a negotiation. When you talk about the different countries that have foregone their options -- I mean obviously, there's a long list of them, which by signing to the NPT to begin with, decided to forego those options, so they're joining an agreement. But most of them that you point out very nicely in that chapter in the book, did it without international agreements beyond the very loose NPT structure. They did it for their own reasons, as you point out. And if we go into a formal negotiation, does that make life easier and simpler and quicker or does it actually slow things down and raise a lot of *quid pro quos* and other things. So I think that would be interesting to hear some comments on that. And the third issue I think is really quite fascinating and -- this is one of the places I learned a lot from the book since I've been out of date -- is virtual deterrence. So it's a fascinating idea. I think it probably requires more discussion and I thought maybe there might be a little more discussion on conventional weapons and conventional balances than perhaps we've had to date and their relationship to this as well as other kinds of weapons of mass destruction and their implications for this.

So those are three general themes, but anything that anyone would like to say on any issue would be most welcome. And if you could just identify yourself just so they know who is persecuting with their questions, that would be great. Please. Right here.

**Bill Kidd:** Yes. I'm --

**Ed Luck:** And push your green button here to turn this on. Thank you.

**Bill Kidd:** Thank you. I'm Bill Kidd, member of the Scottish parliament. I'd like to ask a question. Now, David mentioned the idea of minimum deterrence since negotiation done between the two major powers to around 200 warheads each or whatever. I know though that that would bring them alongside the other acknowledged nuclear weapons states. Amongst those states, of course, would be Pakistan, which had its own way of acquiring nuclear weapons, which was not the standard way. The standard way is not a good one, but it wasn't the standard

way. France, which has its own nuclear weapons program, and the U.K. has a nuclear weapons program which is inextricably linked with the United States to the extent that the nuclear weapons that U.K. has are actually American -- at least American designed and controlled basically. On that basis then, asking this from a circumstance where I live -- I live in the U.K. -- whether late or not, could I ask what the circumstances are -- what you believe the circumstances maybe should the U.K., you know, to actually disarm --whether that would upset the balance of the reductions or whether that would be something which would actually provide a direction for other countries to look at? Thank you.

**Ed Luck:** Okay. Let's take a few more. Right here and then --

**Alyn Ware:** Alyn Ware. I'm with the International Association of Lawyers Against Nuclear Arms and also Parliamentarians for Nuclear Non-Proliferation and Disarmament. I had two comments with a slight question. One was with regards -- it was sort of the same point as what Bill was making, but coming on different tech, you know, the idea of having the smaller nuclear weapons states being let of the hook until the principal nuclear powers get down to low numbers. This seems to me to be missing an opportunity to make progress with those other states as well. And I coordinated the drafting of the revised Model Nuclear Weapons Convention under which we propose that there be proportionate phased reductions in the nuclear capabilities of all the states that have nuclear weapons capabilities rather than letting the smaller countries off the hook. I'm just wondering what you think about that proposal and the model nuclear weapons convention.

And my second comment was with regards to the comment that Mr. Väyrynen said about the nervousness that you felt in Japan by some people when Obama was looking at reducing the U.S. Nuclear Doctrine which might weaken the extended nuclear deterrence, my experience from being in Japan very much is that's a very minority opinion. This is reflected, for example, in the letter from Foreign Minister Katsuya Okada in December to President Obama and then later by the 204 parliamentarians from across the political parties in Japan, encouraging President Obama to reduce nuclear doctrine and saying that there was no intention of Japan to develop a nuclear weapon instead. In fact, the alternative that's been put forward in Japan to nuclear deterrence and continuing the extended nuclear deterrence is to move towards regional non-nuclear security through a nuclear weapon free zone. And, again, Foreign Minister Okada has put forward a draft treaty for a nuclear weapon free zone. So I'm wondering if in the move from nuclear security to non-nuclear security what you would think about as the role of nuclear weapon free zones in some of these regions, and I know in the European context one of the Finnish members of parliament Kimmo Kiljunen, who is the Vice Chair of the Organization of Security and Cooperation in Europe Parliamentary Assembly, has put forward proposals for a Central Europe Nuclear Weapon Free Zone and is also meeting with other parliamentarians on the idea of an Arctic Nuclear Weapon Free Zone as one of the stepping stones towards moving from nuclear security to non-nuclear security. Thank you.

**Ed Luck:** Thanks very much. If I can just add to that. David, you talked about getting to minimum deterrence and then going to sort of the more multi-lateral process. Might the order be reversed? I mean there could be an argument that if you've already gone to minimum deterrence you've taken away the incentive for some of the others to join on board, and you've probably created some very interesting political problems at home. Remember the CTBT fell apart in the Senate partly because a lot of senators were very skeptical about all these others. It's great to,

you know, negotiate with the Russians, but do we really trust the rest of them?  
Please.

**Perry Cammack:** Perry Cammack from the Peace Institute for International Affairs. I would like to ask the question of virtual deterrence because – [INAUDIBLE]

**Ed Luck:** Fascinating point. Just in the back here and then -- then Francesco and then we'll go back to the panel.

**Tarja Pesämaa:** Tarja Pesämaa from the – [INAUDIBLE] -- for peace and the building -- I thought the bargain of the NPT was to develop nuclear capability for peaceful purposes and the whole -- what that's turned into is this attack on Iran for doing what it says is for peaceful purposes with, as you put, it murder. There isn't proof of that otherwise. So is there some way to get back to the track for building that collaboration for the peacefulness of nuclear technology and to really specify that and build that as a way to build alliance and "Atoms for Peace?" Thanks.

**Ed Luck:** Fascinating question. And that allows me another advertisement. The stamp on the cover of this publication actually is an Atoms for Peace stamp so it brings it right back. So thank you for the segue. Let me -- I -- okay, we'll go to Francesco and then you and then we'll go back to the panel.

**Francesco Mancini:** Francesco Mancini from IPI. I think you made a very convincing argument for a world free of nuclear weapons, but just for the sake of discussion, let me make the opposite argument, which has been around for a long time, but I was actually reading again on the *Financial Times* 10 days ago. So it's promoted -- which is the "world free of nuclear weapons" makes war -- conventional war -- especially among big powers more likely, and then especially in a very fluid situation, which we are. We have emerging powers. The argument goes saying that, you know, more resources will be free for conventional weapons, even more resources could be freed for even possibly nastier weapons like bacteriological, biological weapons and so forth. How do you react to these arguments?

**Ed Luck:** Thank you. And just in the back here, please?

[INAUDIBLE]

**Ed Luck:** Great. Thanks very much. I'll revert to the panel. Do you want to go first, Raimo or to David first?

**Raimo Väyrynen:** Well, I started first last time, so David's turn.

**Ed Luck:** Okay. So David first.

**David Cortright:** Well, that's too bad. I thought he was going to answer them all. No. Some very good points. I'll begin with this question of letting the other powers off the hook and -- maybe I slightly overstated this notion of going to minimum deterrence and then dealing with the other nuclear states. I didn't -- and we don't say that in the book. There does need to be a mutual negotiation at some point. And it is necessary for the U.S. and Russia to get down to those lower levels, but certainly it doesn't mean that we should refrain from encouraging the other states to also reduce, and indeed France and U.K. have considerably. And also certainly that every effort should be made to address the regional issues -- India, Pakistan and, of course, the Iran-Israel Middle East disarmament problems. So certainly, all of these need to be addressed simultaneously. And we do specifically argue in the

book that the argument that is sometimes made that “why we can't achieve disarmament among the major powers -- U.S.-Russia until we solve all these regional issues is unfounded,” that we need to move forward on both areas. So I was emphasizing that because that's part of what we say in the book. But the reverse is also true that progress needs to be made in those areas.

On the question of whether the U.K. should disarm unilaterally, it's interesting Margaret Beckett mentioned this in the Helsinki conference. Her view is that it's really not the main issue right now. It's better for her -- in her view that U.K. should work with the U.S. and other states to encourage global process. On the other hand, we know that unilateral steps can be a critically important gesture to break the ice so to speak and move the process forward. Certainly, that's what happened at the end of the cold war. Gorbachev made these extraordinary gestures which initially the West didn't quite believe or accept, but eventually they had a significant impact. So that -- that is necessary.

Tarja's interesting point about a possible nuclear labs arms race or something of that sort, you know, that is certainly a big issue that has to be addressed. I mean the notion of getting to zero, you know, no return, I mean that's certainly the goal, but the simple fact is that the knowledge and the materials will always exist, and at least for a time, as the world is getting rid of these things, some organization, if you will, of the capacity needs to be developed. But in the book we also talk about the element of time and how long it takes to rebuild. And time is really one of the variables -- in other words, how long it would take to remake weapons or how long it would take to rebuild them. Those are realities that we'll have to deal with for some considerable time in terms of historical periods. But the goal should always be to extend that time and hopefully you can come to an international relations condition where states will feel comfortable with getting rid of all of that apparatus. That should certainly be their goal. I mean it's probably true and as I mentioned I talked to this at Stanford and I could just see his eyes, you know, getting excited about the possibility of new systems for the labs and where a lot of people who would want to have this. But over time, you know, this will, hopefully, dissipate and we can -- and certainly the political process should always be moving towards extending the time, reducing that "potential capacity" and then moving towards security based on other means.

And in terms of conventional forces on the traditional argument that it may make war more likely, we have some important lessons and I think the most important one is at the end of a cold war when we saw the 78% reduction in strategic nuclear weapons. We also saw an unbelievable historic reduction in conventional forces in Europe and the CFE. Now, it's tattered over the years, but the point is that there was a -- a mutual process of nuclear disarmament and conventional disarmament. And that's ultimately going to be necessary because, as we said, both Raimo and I, nuclear weapons are fundamentally a function of security perceptions and states aren't going to go to disarmament until they feel more secure and if they do, then they'll feel more able to reduce some of their conventional capacity. Conventional forces will always remain important until we eliminate war in some future.

**Ed Luck:**

Is that the next one?

**David Cortright:**

Yeah. Right. For our great, great grandchildren, maybe. I don't know. Or as soon as we can. But in the reality of international states, conventional means will be there, but it doesn't mean necessarily that the likelihood of war or the propensity to war will increase. Actually it more likely is the opposite.

**Raimo Väyrynen:**

Well, if I may continue briefly on the conventional war argument. Indeed, there are lots of people saying that nuclear disarmament will make the world safe for conventional wars, but I think this point really, as David said, has been exaggerated. There hasn't been a single war between major powers of any kind since 1945 unless we consider China and Vietnam in the '70s to be major powers or India and Pakistan to be major powers in the past. At least I have difficulties imagining any kind of a conventional blitzkrieg between leading powers. And I hear also the argument about the virtual deterrence coming the equation because if the capacity to reconstitute nuclear weapons takes a few weeks or maybe two months, it still continues as we have been trying to argue here. It continues to be functional as a deterrence not only against nuclear war, but also against major conventional wars. Obviously, civil wars and some limited number of interstate wars will continue in the future. There are lots of data collected for instance by the Department for Peace and Conflict Research at Uppsala University on the frequency of warfare. So while conventional war is always possible, I think it's not a very strong argument against virtual deterrence.

There were at least two points made on the peaceful uses for nuclear energy. I mentioned in passing the peaceful use as the, third pillar of the NPT, and that's one development we have to take seriously. There is so-called nuclear renaissance in the world we know. There are about 80 or maybe 90 nuclear power plants either under construction or under planning. Some like two thirds of them are in Asia, mostly China, India, South Korea, Japan to some extent. And those power hungry emerging economies will no doubt continue to build up nuclear power plants. Even some European countries as we know are redefining their policies vis-à-vis the peaceful generation of -- of nuclear energy.

Thus -- and Tarja Cronberg argues in her report in more detail in this issue -- we have to take the proliferation risks of the peaceful uses of nuclear energy seriously. There is a link, but the link I don't think is to continue to rely on nuclear weapons or to deny the access to peaceful nuclear energy that's built in the non-proliferation treaty and it is ultimately the decision of each individual country whether they rely their energy needs on nuclear power or something else. And it's a controversial issue in some countries we know. I think a solution is of course to strengthen the International Atomic Energy Agency. The argument was often made and we do it as well -- increases capability for monitoring and preventing in collaboration with the Security Council, the diversion of nuclear expertise material for military uses. But that is peaceful -- access to peaceful nuclear energy. Of course, it is a challenge as well.

And as a very final point on a more general level, I think -- at least I personally feel -- that we have come to the situation where the provision of nuclear expertise and material by existing nuclear weapon powers have come to a certain end. I mean to say Chinese collaboration with Pakistan, U.S. collaboration with Britain and even with France to some extent as we know during the past, it was based on a rather political calculation what benefits might be derived from providing nuclear weapons to our allies. I think in the existing nuclear weapons powers, this perception doesn't prevail in the same way as it did in the past. It's seen as short sighted. It's seen as counterproductive and, in fact, the non-proliferate motive of the existing nuclear weapon powers I think is stronger than it was in the past. Of course you can then from the other point of view criticize those powers that they are forming a cartel and just serving their own interest. But I think there has been change in mind in that regard in the, as I said, existing nuclear driven powers.

**Ed Luck:**

Thank you. I think we have time for another round. If I could just make two little comments to start the round, one, it seems to me that in your arguments about the fact that there's been no use of military powers, let me put it this way -- since 1945, and the discussions about minimum deterrence and other things and -- and that a virtual deterrence you both seem to buy into the argument that deterrence actually has worked, and I think for some people around -- in this room that may be a question that or a point they don't want to accept. And once you accept that, then, you know, certain things following in terms of what you can and can't argue. And it seems to me -- I mean I happen to believe it works, I think that more discussion that would be useful.

And also on the point on conventional weapons, I think Francesco was talking about, you know, making conventional war easier -- have it less likely be deterred, which is a question I think still is on the table. In fact, I think your argument that since there hasn't been conventional conflict between these countries for all these years tends to reinforce that. That, in fact, there has been that nuclear deterrence has helped to discourage the use of conventional force. But I was actually thinking about it in a different way, that the conventional imbalance is much more marked than nuclear parity. In other words, the U.S. has such an advantage in non-nuclear weapon or in conventional weapons and high technology and that seems to be increasing over time. That would discourage others, particularly the Russians, but maybe others from giving up their -- their nuclear capacities in order that this would open up the gates for the U.S. to use this imbalance even -- even more. But I think that would be worth some more discussions.

I saw your hand, John, and then others.

**John Hirsch:**

First of all, thank you both very much. I have two questions. One is I wanted to kind of draw you both out on Iran because in your middle chapter in your book you're kind of quite nuanced and you kind of indicate that sanctions really have failed and are not working and you talk about some incentives package. Then in the conclusion, you kind of say it's like North Korean sanctions should be retained. So I wonder where you stand now on what might be done. Looks to me like we're at a total stalemate.

The other question I have for you is not about conventional weapons, but about small arms. And it seems to me first of all that many, many more people have been killed in the world since the last 65 years by small arms than by nuclear weapons, which of course were used in Hiroshima and Nagasaki, but not since. And it's not in any way to detract from all this effort to control nuclear weapons that you're talking about, but do you have any thoughts on getting similar political energy on small arms as the energy that is now being directed to this really important issue of the elimination of nuclear weapons? There are very few people here from the global south to underline my point with this kind of a meeting with the global north with a few exceptions, which always seems to me to be the dichotomy in the world. So I wonder if you could comment on that.

**Ed Luck:**

I must say our NPT roundtable series was pretty balanced and had a lot of developing country participation, but they are, of course, professional diplomats paid to pay attention to these issues. So that's a different thing. Could I just add to this question that John is raising about Iran and sanctions. David, you're the great expert on sanctions. In many ways, the three rounds of sanctions so far that the Council has imposed on Iran are sort of the epitome of smart, targeted sanctions and yet people keep saying, have they made a difference? So, you

know, what does that tell us about sanctions. I have a question here and then François and then Adam.

**Robert Green:** Thank you, Ed. Robert Green is my name. I am a former British Navy Commander and I used to operate nuclear weapons in aircraft. And I have changed my mind and I've just written my confessional. So it's on sale in the U.N. bookshop if you like the special discount.

**David Cortright:** Oh, and we could have added it to the pile here. We've been pushing so many books today.

**Robert Green:** I apologize, David. I'm intrigued about this business of the value of nuclear deterrence and I know that the accepted consensus is that it has worked. I went to a fascinating panel yesterday hosted by this government in which a report was presented in which this was severely challenged in that there was very little evidence that it had worked and that we could have been the victims of an enormous hoax overall these years because the Americans wish to justify their continued retention of nuclear weapons. And so I would like to challenge you all sort of premise here, which is that nuclear deterrence is always going to work even when it's virtual. And I really feel that we've got to move away from this obsession with nuclear weapons providing some form of security blanket. And I should also explain that I was the presenter of the NGO statement on nuclear deterrence last Friday afternoon in which our consensus was that this had to be challenged and the bluff had to be called. And that's what we're into now.

I think I would also like to add as a little more parochial note that I -- although I live in New Zealand now and therefore of the global south, I was in Britain, I was born there and I'm very glad that Bill raised the issue of unilateral moves by the British because my understanding at the moment is that the last document that's being presented by politicians in Britain for retaining the British nuclear capability is because the French had it. It's nothing to do with security. It's all to do with prestige and jostling for influence in Europe. And I would like to offer an idea that how about if Britain chose to break out, would they be rewarded by being allowed to keep their Security Council seat? Thank you.

**Ed Luck:** Let me turn to François, who works on nuclear issues, here at IPI.

**François Carrel-Billiard:** Thank you. I have a question about the scenarios for the future: What do you think is the most likely scenario for the next five years, leading to the next NPT review conference. Within the next five years, do you think that the crisis over Iran's nuclear program will be solved? That Pakistan will agree to an FMCT? That the US and Russia will reach a better understanding on missile defense? Do you think that we will observe these positive trends or that trends will point to the opposite direction?

**Ed Luck:** Yeah. Another important question. In fact, I wondered about this. Sorry to keep adding these questions, but you talked about need for very integrated approach. How do you negotiate a very integrated approach? It always seems to be difficult to do. Adam?

**Adam Lupel:** Following up on that and in relation to the "must, can, should", my question is related to the "can" and, to get back to Ed's second theme that I don't think we've really discussed, and that is the question of agreement or negotiation to get to zero, and to what extent do formal negotiations make it easier or perhaps make it more difficult, then the question that is, of course, of interest in this neighborhood, is what is the role of international organizations in this process?

And this perhaps also dovetails with François's question about the next five years in relation to the NPT.

**Ed Luck:** Good. We've managed to avoid the U.N. so far in this conversation. Who else would like to join this round? Anyone? Okay. Which order would you like to respond?

**Raimo Väyrynen:** What if I start --

**Ed Luck:** Raimo first.

**Raimo Väyrynen:** -- this time. David is our [INDISCERNIBLE] guy, so he certainly will address many other issues. I just would like to take up two points, the value of deterrence and then, secondly, this scenario where we are five years from now and I'm sure David has to add there as well. There are obvious different views whether deterrence has really prevented nuclear and conventional wars. There are those among researchers just like John Miller of the Ohio State who have argued for a long time that nuclear deterrence hasn't really existed that there are other factors that have kept peace between the United States and the Soviet Union during the cold war. I personally believe -- and David doesn't need to agree with me that yes, well deterrence has been existential like Nicholas Bundy call it or in some other form, it has been playing a role. But the attribute -- the gold piece to nuclear deterrence only, I think it's a misleading type of analysis. Moreover, I think we have to keep in mind that nuclear deterrence is not only based on cold calculation of rationalities on both sides. There's always an elemental trust in deterrence that you have confidence that the other side is thinking roughly in similar terms and understands your communications, your signals and so forth. It almost broke down in the Cuban crisis as we know. So it's not simply -- I mean deterrence is not neither nor theory of deterrence here we have cooperation. There can be even -- may sound as oxymoron, but sort of cooperative deterrence as well. And perhaps the issue albeit longer term is that how we can enhance the trust and confidence element in some kind of an existential deterrence that will continue to exist as long as I can -- or anyone can see.

Here we come to the scenario thinking. Personally, I feel that not all that much will change within the next five years. I assume that if all goes well that there will be further progress in U.S.-Russian negotiations, that there will be further cutbacks and quality limits on strategic weapons. There, I hope, will be discussions going on perhaps with some interim results on the tactical nuclear weapons in the world, but we won't have -- well, we have taken few steps toward say a nuclear free world. We may have progressed very far. Well, I will not see a nuclear free world in my lifetime, but I hope Obama will because he's almost 20 years younger than I am. I'm referring to his Prague speech. So we have to think in terms of two three decades at a minimum.

And what Ed asked about the integrated -- the difficulties to negotiate on the basis of an integrated approach, yeah, that is very difficult and perhaps you have to build confidence. The talks, you know, the incremental process that you start from a core issue. And I think the core issues are not necessarily nuclear capabilities as such, but they deal with regional conflicts, the perceptions of inadequacy or insecurity in some of the countries that you -- and, for instance, is it impossible for United States to think about providing even conditional security assurances to North Korea? It will not probably do the trick. We have seen that in the past, but I can see that the U.S. wouldn't be losing anything that's significant if it tries that way.

So try to find some of the key entry points to negotiations. Try to define the key or core issues and try to build on that incremental approach which gradually integrates more and more issues. I know this is a lousy answer, but I don't have a better one. David?

**Ed Luck:** No, it was a good answer, just a tough question.

**David Cortright:** On the question of Iran, which is one of the most difficult of all and issue of sanctions...

**Ed Luck:** Sorry about that.

**David Cortright:** It's interesting in the writing of this volume, we sort of had a negotiation between Raimo and me and then we had a pretty intense negotiation with our editors at the IISS and probably these couple pages were the most negotiated and contested. And what we came up with was an assessment that the Iran issue is in many respects the most important because if a solution could be found, if this very contentious stand-off could be resolved, it would lower tensions dramatically, not only regionally, but globally and allow other movements forward that right now seem much more difficult. In Iran, we've had a U.S. policy of unremitting hostility going back 30 years. And actually I have an Iranian student in my class and she says no, actually you have to go back to '53. So there's an important history that in the West is necessary to understand and, frankly, to have some humility as a result. I visited Iran a couple years ago and had the chance to travel around the country and also a sense of humility in terms of the greatness and the grandeur or that civilization and all of the achievements it's had over history and again Americans in particular need humility in that regard. But it is right now a regime that's abusive in terms of its human rights and it has been defying or refusing to cooperate fully with the IAEA on its nuclear program, so there's a legitimate international concern.

The U.S. unilateral sanctions that are in place for most of the last 30 years have been judged by every analyst, including George Lopez and myself as counterproductive. Not only not succeeding, but actually making the situation worse because they hinder the kind of dialogue and improved understanding that ultimately is necessary for every political problem to be resolved and they provide a justification for the ayatollahs and other repressive rulers in Iran to create an atmosphere of hostility toward the external enemy. It's always convenient for political leaders to blame their problems on the other rather than their own misrule and misjudgments. And this is a view that I think is quite common in Iran. Even the green movement, Mousavi and others who have been leading the opposition to the rule of the current regime have expressed their general support for a nuclear program and their strong opposition to sanctions.

So the solution does seem to me you have to be looking at this sanctions-only policy and trying to reevaluate. And the role of the U.N. here is central. We've learned from analyzing sanctions over the years that by themselves, sanctions are almost never effective, that they need to be combined with incentives and they need to be part of a buyer -- a bargaining process. Lopez and I have talked about this bargaining dynamic often in our writings on sanctions. In the case of Iran, there's no bargaining to speak of, and we have only sanctions.

So what are the incentives that can make a difference? Well, there are two types. Of course the European Union has made significant efforts to try to put various carrots on the table. The group of nations, Germany and others. So far

Iran is not really taking them up in part because the main player has not really been engaged and that's the U.S. So the U.S. needs to be willing to make some concessions. The U.S. has dozens of various forms of sanctions which could easily be lifted or suspended as gestures of openness and in attempt to build some basis for negotiation. For example, all the financial assets are still a lot of the financial assets that were frozen in '79 that are still locked away in the U.S. and other such measures. Just scientific and cultural exchanges, the kind when I went to visit two years ago, we had to go through Toronto. So it's ridiculous.

So these kinds of things can be offered as gestures to induce cooperation from the U.S. side. But then on the international level, we make a proposal which is highly controversial. We'll win no friends at the U.N., but I think is necessary, and that is to consider some concession on the fundamental issue of enrichment. You know, and we know under the NPT states are entitled to enrich. Not that many do anymore, but Iran is asserting this so-called, well, it is not so-called, it is in the treaty, the inalienable right for nuclear production. When they have these rallies, they are chanting "inalienable right," you know, so we need to recognize that. And what about some kind of a concession that would say okay some limited enrichment might be a possible, and then set out conditions around the additional protocol and maybe additional protocol plus in terms of IAEA. George Perkovich and Pierre Goldschmidt had made a proposal along these lines in the fall to indicate such a possible concession. This was made more complicated by the fact that Iran has now unilaterally gone to 20% enrichment for their research, reactor in Tehran. But my understanding they're still at the main facility they're maintaining the 5% level according to the IAEA reports. So, I mean that's a controversial proposition, but it seems to me it could be significant. Along with also the fuel swap idea, which Iran offered and then pulled back and now it's back and forth. My understanding is the latest offer is to swap small parts of their fuel on their island in the Gulf. So they want to do it on their territory. They're very paranoid about Russia and the U.S. and other states. Are they serious? We don't know, but maybe it should be at least considered as a step to induce some cooperation. So the point being there are a range of inducements, gestures that could be made from the West that might have some chance of breaking the ice and opening the way to some significant gestures.

And the fact that these leaders of the opposition in Iran have supported similar statements is significant. And if we want to support that movement, maybe this is a way that we could do it.

**Raimo Väyrynen:** It makes disrespect at the same time.

**David Cortright:** Yeah. Yeah. Right.

**Raimo Väyrynen:** I think go on this ice.

**David Cortright:** Right. So that's I think significant. Now, the sanctions that the Council has offered, the three rounds, as I've indicated, I'm not such a fan of the -- this restriction on enrichment. That's part of the U.N. position, but I think there's been some value in restricting the trade and commerce with Iran on nuclear and military related technologies. And we know from the past that non-proliferation sanctions are not sufficient to prevent a state from developing nuclear weapons, but they can slow it down. They can raise cost. They make it more difficult. And there are intriguing reports from a number of institutes that Iran's uranium supply is limited. Maybe they've reached the limit. They need uranium from other places. And to the extent that sanctions are being enforced, which is always

some doubt, but there is considerable enforcement underway and restricting supply of uranium to Iran may be one of the functions that the sanctions are performing, and to that extent they make it more difficult for Iran to move ahead. So I think a combination of continued restrictions that are focused on this technology and military and supply of uranium combined with more significant inducement gestures might be a way to move forward and break the ice.

And let me just finish then with the question of negotiation and the value of negotiation and the role of international organization it seems to me comes in here. As we've tried to indicate, gestures, initiatives, but the disarmament campaigners called unilateral was described as unilateralism, there is a role for those kinds of measures because it can break the ice and move the diplomatic process forward. But agreements are important and if we go back to the ending of the Cold War, yes, there were initiatives that broke the ice, but then there were treaties that kind of formalized the process and became a basis for moving forward. And most significantly for setting up the kinds of confidence building measures that Raimo talked about and the cooperative instruments and processes in which states increasingly imbed their relations in a whole range of mechanisms and meetings and all of that while very frustrating and often fail to really bring very significant progress, does enhance cooperation among states, raises the level of understanding and established a -- a basis upon which they can workout their political agreements without threats and with a greater degree of confidence and understanding in each other's motivations.

And that, ultimately, as we said in the book, and as I mentioned in my opening comments, is the basis of security. It's through enhanced cooperation. And this even maybe gets to the question of deterrence. What is deterrence? Well, it's -- we think of it in nuclear, maybe it's conventional, but it's when states feel that the cost of military action outweigh any benefits. Now, it's always threat based, but it can be in terms of the benefits. The benefits of cooperation are very high. And we see this in terms of how the European community has evolved over the last 50, 60 years and through mechanisms that the U.N. has created at multiple levels. International institutions, as nations become embedded in them, enhance cooperation and security and create higher benefits for maintaining cooperative relations.

So thinking of it in that broader context, we can see how international processes and agreements can build confidence and cooperation and security.

**Ed Luck:**

Great. Thank you very much. I don't think there's time for another round. We only have a few minutes left. But I did want to give our -- our co-authors and presenters a chance for any kinds of words of wisdom that they might leave with us. Raimo, you first.

**Raimo Väyrynen:**

Yeah. Very briefly. David in his introductory remarks refer to a roadmap and we definitely need a road map and even more than that there is -- well, what we need is a route map. In other words, thinking of how we can move towards nuclear zero over the next 20, 30 years. And I think we need that kind of long term thinking in that regard. And we try to make a small contribution by talking about virtual deterrence and the conditions for moving forward. So perhaps we have, I hope, added a bit of a road map to the road map as well. But we have to realize at the same time that these are very complex issues that are tested basically everyday. For instance, ratification debate of the U.S.-Russian agreement in the U.S. Senate will be one of the coming tests of what will the future look like. And obvious taking a midterm perspective, how the U.S.

domestic politics will evolve, what will happen in Russia in say two years time. What kind of power constellation will develop there? How the transition to new leadership in China will take place? And so on and so forth. In other words, there is now -- the route map is certainly very -- if there is any -- is very fuzzy these days. And, therefore, we are talking about a political process that is I said tested basically every day and every week. But I think we have all the reasons to be today more hopeful than we have had for a long time on the issues dealing with nuclear weapons and their control. And thanks for coming. We appreciate very much your coming here and sharing the ideas with us. Thank you.

**Ed Luck:** Thank you very much and thank you for the optimistic note, which is, as I recall the way the book begins. Politically things have never looked quite so good and not for a long time. David?

**David Cortright:** Well, just to thank you, Ed, and our host here at IPI for putting on this program here today and again to thank the mission of Finland to the U.N. for the support and the Finnish Institute, the Kroc Institute and others who helped to make this possible band also our colleagues at IISS and just a final point that Raimo mentions about the political process. It's absolutely necessary, but also the political role of civil society and IPI and the other organizations that are represented around the table, I've been involved in these efforts for many decades and was much more involved in earlier years and we know that the engagement of citizens civil society is key to helping them make the political leadership move forward. So I think this kind of forum and the many others that are happening here in these weeks at the U.N are key.

**Raimo Väyrynen:** Make it happen.

**David Cortright:** Yes.

**Raimo Väyrynen:** Wasn't that the point?

**David Cortright:** Yes. Make me do it.

**Ed Luck:** Make me do it. Make me do it.

**David Cortright:** As Roosevelt said and that's what Obama needs and Medvedev and all of them to help push them forward. So thank you very much, Ed.

**Ed Luck:** Thank you for a very stimulating discussion and if you haven't read the book I recommend it and, again, thanks everyone for coming especially to our two presenters. Thanks very much. Have a good day.