



**CARNEGIE**  
ENDOWMENT FOR  
INTERNATIONAL PEACE

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Transcript

**PROLIFERATION  
PROGNOSTICATION**

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## **JAMES ACTON**

General of Defence and Intelligence at the UK Foreign and Commonwealth Office, Sarah joined the FDTO in 1991 where she has enjoyed a distinguished and I have to say a remarkably varied career. She was the high commissioner to Sierra Leone, she was the ambassador to Liberia, and most recently she was the director of defence and national security in 2011 to 2014. Sarah thank you so much for agreeing to do this, I am going to hand it over into your capable hands now.

## **SARAH MACINTOSH**

Thank you James and good afternoon everyone. This panel is going to go really fast because we have four votes and four discussions to do in just around about an hour. But luckily we've got some of the fastest thinkers in the business on the panel so let me introduce them really quick.

Zia Mian, is Director of the South Asia Peace and Security project at Princeton. He's also taught at Yale and in Islamabad. He's the co editor of Science and Global Security. He's a member of the International Panel on Fissile Materials and he's was awarded the 2014 Linus Pauling award for his accomplishments as a scientist and as a peace activist.

Gareth Evans is Chancellor and a number of other appointments at the Australian National University. Nine years as Australia's foreign minister, four more in other cabinet positions and head of the International Crisis Group.

Bill Potter is the Nunn-Lugar Professor for Non Proliferation at the Monterey Institute. He has also edited over 20 books. He is on many committees over the US National Academies of Sciences and five years on the UN Secretary General's Advisory Board of Disarmament.

Emily Landau is the head of the Arms Control Program at the Institute for National Security Studies of Israel. Among her many subjects of expertise are global arms control in WMD, she is a member of WISS in London and active on a number of track two areas around weapons of mass destruction and security issues, for which I guess we would all thank her.

So what's going to happen? About every 15 minutes a question will come on screen, you will vote on it immediately in the way that you've just practised. You will have about half a minute to do that and when we see how you've voted the panel is going to discuss the questions.

The questions are written really precisely to force you into a binary yes/no choice. If English is not your first language listen for my voice and I will give you a simplified version of the question.

Each question considers a two year time frame so is this issue going to happen between now and March 2017. I think, hope that that is clear to everyone. If you could bring up the next or the first question please?

The simple version of this question is, is one of Russia or the United States likely to suspend participation in or withdraw from a New START or the INF Treaty in the next two years. Yes or no, vote now please. Is that right, is it not working?

All right, in that case I guess we'll do this one the old fashioned way. If you want to vote yes, you think that one of the two countries will suspend or withdraw from participation in one of the two treaties in the next two years, raise your hand now.

If you think the answer to that question is no, raise your hand now. I think I'm saying about 65-70% no, and whatever the balance to 100 or 101 is, yes, all right.

One treaty, one almost 30 years old, one uncontested being implemented and verified, but one under quite a lot of strain with discussions between the parties on compliance. Both against a really difficult backdrop of arms control under pressure especially in Europe.

Rapid technological developments across security and defence and really sharp political strains including the annexation of part of a sovereign state and a pretty confused context.

Bill, you voted no that you don't think that either party is going to withdraw from either treaty and you've written that you think cooler heads will prevail in this debate, tell us about that.

#### **WILLIAM POTTER**

All right, I find myself in the unusual position of being an optimist again, that's contrary to my normal persona as most of you know but in fact I could have argued this both ways and I might have had I had the opportunity to have registered my vote before I listened to Alexei Arbatov this morning.

The factor that I think will most likely determine the outcome actually has relatively little to do with the specifics of the INF Treaty or the START Treaty and I think everything to do with the US Russian political relationship two years hence.

For the sake of argument I could have adopted an optimistic outlook and assumed that the overall relationship between the United States and the Russian Federation would not deteriorate very significantly.

I think under those circumstances it's not very likely that the United States or Russia would withdraw from either the new START Treaty or INF. I think the likelihood is greater with respect to INF I'm going to focus on that issue very, very briefly.

As my CNS colleague Doctor Nikolai Sokov has noted the INF Treaty which was signed in 1987 and entered into force the following year in fact has been under attack for the Russian military for almost a decade, certainly since 2006. The opposition to a substantial extent stems from the fact that the treaty limits all land based missiles with a range between 500 and 5,000 kilometres regardless of the weapons that they carry.

As such the Russian military has long been nervous about NATO's long range precision guided conventional forces in regard to the INF Treaty as constraining its ability to deploy intermediate range high precision conventional forces.

I think another important factor which was also noted by Dr Arbatov earlier today is the fact that for some the INF Treaty was symbolic of what was perceived by the Russian military as having made unilateral concessions to the United States. I think those are two reasons why the

treaty has been under attack. Certainly this attack became more pronounced this year with the accusations about treaty violations.

That being said it's my perception that neither the Obama nor the Putin administrations currently appear to be anxious to aggregate the treaty. Instead what I anticipate that we will see more of are calls for an initiative to globalise INF, something that we've heard in the past. Also perhaps proposals to revise the INF Treaty to maintain a ban on nuclear land based missiles while allowing the deployment of conventional ones.

In short I believe there is a good chance that the US and Russia will not abrogate the treaty in the next two years. Our question was the probability of abrogation within a two year time frame. I think that the treaty regime is fragile, it may not be sustained indefinitely. If in fact one of the parties, and I think more likely, Moscow, were to decide to withdraw from INF I think there would probably be calls in both countries to withdraw from New START.

### **SARAH MACINTOSH**

Both Emily and Zia have voted yes, they do think that one or other party will withdraw or suspend participation in one or another treaty. So I'm going to ask Emily, I think you might think this is more of a question of global politics.

### **EMILY LANDAU**

Definitely, and I would agree with what you said that it's more about US Russian relations. The model of my arms control classes, all my students know I always say it's arms control in context. And the context matters. Very often it's the whole story and so in this regard I took the question very literally.

I have to say a little caveat here, I'm not prone to making predictions with regard to international relations. I think it's somewhat presumptuous to make predictions. We're not very good at that in international relations, and there's a reason, because we're dealing with the most complex organization structure.

We can talk about trends, we can talk about patterns of behavior, but to presume to say that this and that will happen in a certain time frame this is something that I avoid doing. I'm playing along with the panel and I took it literally that it's a likelihood of over 50% and therefore my answer was yes.

I would focus really in this regard more on Russia than the United States. I think that the invasion of Ukraine has obviously altered the situation dramatically and I think that the implications as far as arms control is concerned are not yet clear. I mean we're very early in this new development and therefore I think there's a lot of room for surprises.

Just Sunday we heard the Russians, Putin, making a threat towards Denmark, that if the Danes agree to participate in NATO's missile defence they will be targeted with Russia's nuclear missiles. This is a step up in the tension that's been going on for several years with regard to the plans for missile defence.

I think this is something that we might not have expected to have heard from Putin maybe even just two years ago. I think this gives cause for thinking that things might not just continue in the same vein that we've become accustomed to.

Again there's the question of the violations of the INF that also needs to be taken into account. I would say Putin is even somewhat unpredictable with regard to the Iran deal. I mean I'm wondering whether everyone is totally certain that Putin will not do anything to undermine an emerging deal.

Not for the reasons that perhaps we hear from Israel most of all, but certainly not only from Israel. In other words the concerns that this will be a bad deal but rather for economic and strategic reasons.

I'm not sure that Putin will feel totally comfortable with a deal that was brokered mainly by the United States, giving the United States a very clear foreign policy victory and leaving Russia sort of on the sidelines.

We saw a similar dynamic back in 2013 with regard to the Syrian case and the CWC and we saw how Russia moved to the fore. In that case it was in a very positive manner but it was in order to make it very clear that Russia wants to have its role with regard to the Middle East, relations with Syria, relations with Iran. Therefore I think there's enough reasons to be a little bit unsure that these arms control treaties will necessarily continue as they have.

**SARAH MACINTOSH**

Thank you. I think we should be able to vote electronically now and having heard one yes and one no set of arguments you've also got the opportunity to change your mind if you wanted to. The vote is open, would you like to vote again please?

To remind you, if you think one or another country will withdraw or suspend participation in either New START or INF you're voting yes on the App. I am closing the vote now and there will be a tally please.

Zia, New START, daily notification, exchanges of information are happening, onsite inspections are continuing for New START. Biannual treaty data exchanges are continuing and in respect to the INF the Russians are saying publicly there's no need to withdraw from the INF for the time being, they add in brackets. Today you voted yes, you think one or another may withdraw or suspend participation. Why do you feel gloomy?

**ZIA MIAN**

Why do you presume that that's a gloomy way of looking at it?

**SARAH MACINTOSH**

Because I think that arms control is a good thing.

**ZIA MIAN**

So I voted yes in part to make myself think about what it would mean to hold that opinion. And it may be a result of being in a university and you have students asking questions you're not prepared for, so I thought let me ask the question what would be like to say yes.

I think three things come to mind. The first is that as Alexei Arbatov explained in the discussion about INF and beyond earlier today, the view from Moscow is the world looks very different now than it did when the treaty was negotiated at the time of Gorbachev.

There was still a Soviet Union, there was still a Warsaw Pact, there was still a ring of country that were - they would say sympathetic allies, some would say clients or dependencies. From the point of view of Moscow what in today's world would justify such a treaty? I think a case could be made that if they were asked to negotiate the treaty today they would not do so.

The second point is that this is not the first time a super power has withdrawn from an arms control treaty. Not that they have yet, but people have forgotten and it's worth thinking about that under the Clinton administration there was a debate about the US ballistic missile defence program and to what extent what the US was doing was actually a violation of the ABM Treaty.

The US said well not quite and eventually there was a famous statement from the Clinton White House that we found better lawyers that allowed us to make what we were doing legal within the terms of the treaty. Now legalism may not come as naturally to the people in power in Moscow as it comes to people in power in Washington.

The point I'm making is that when it came to the Bush administration they just withdrew from the treaty and the reasons they gave for the withdrawal is that the world has changed. Things have moved on, this is not the context in which this treaty does anything for the security of the United States and so we are withdrawing. Which is some of the same arguments that are being made in Moscow now.

The question becomes if that logic can prevail in an administration in Washington about a treaty which now that the US deploys missile defences people don't pay as much attention to but from the point of view of the history of arms control it was considered to be one of the great achievements of arms control as a way of thinking about international security.

Tom Schelling who could reasonably lay claim to be one of the founding fathers of arms control as a discipline and as a way of thought and a basis for policy once said that the ABM Treaty was in fact the proof of the doctrinal victory of this way of thinking. That the ABM Treaty was arms control and the victory of the ABM Treaty was proof of arms control taking over how we think about that.

What does that mean when you think about the withdrawal from the ABM Treaty. It means that for a significant constituency who thinks about these things arms control was not what we had thought. Therefore I am willing to make the case that the logic that was so obvious to Washington ten years may now be increasingly obvious to Moscow.

The third thing that I think is important here is that what we have with the larger debate of our arms control, and this comes back to my somewhat flippant remark about why is withdrawal from a treaty seen as something gloomy. Arms control was once something that challenged orthodoxy about how states could arrive at ways of thinking about their security and make themselves more secure.

Now we're hanging onto arms control fundamentally as conservatives, it's an inherited form of thought about international security. Rather than seen as, I think could reasonably be being argued, that we should be thinking about where next to go about how states can assure international security.

That the alternative is not withdrawal from ABM, withdrawal from INF, crisis, catastrophe, oh my God the sky is falling. But then this way of thinking may be beginning to run out of value. What new can we think of that will actually take international security forward? I don't think it's necessarily gloomy.

Even if Russia announced only an intention to withdraw from the INF Treaty it would actually help clarify the process of thinking about what the means are by which states arrive collectively at security arrangements? It may be that old 20 year old, 30 year old, 40 year old treaties are not necessarily the best way to do this anymore.

### **SARAH MACINTOSH**

I have two pieces of good news. The first is that the voting App is fine. The second is that the results, whether you voted by hand or by App are broadly the same. Show the results please.

Gareth, you voted no, so you think that both parties are going to stay active in both treaties for the next two years.

### **GARRETH EVANS**

Yes, well despite the new think that Zia describes and despite all the chest beating nationalism we've seen from Putin the reality is that that has not yet translated into a complete perversion of the arms control policy making commitment at the moment when it comes to cooperation in Iran.

When it comes to cooperation as we've seen on the Syrian chemical weapons issue and also in terms of the New START thing where, as has been said, that's plodding along quite cheerfully with no particular pressure evident on either side to undermine that. A follow on from New START is a completely different story but New START itself seems safe.

What about the potential for breakdown over INF? Will, if there is a rational calculation that's applied by Russia to its continued engagement in this, the answer is actually fairly finely balanced. I think Alexei Arbatov spelt out the relevant issues pretty nicely for those of us who went on that session this morning.

On the one hand the downside for withdrawal for Russia would be fairly obvious, the United States may then have the capacity to come back with medium range weapons into Europe, much closer to the Russian border. It would certainly further inflame European sentiment against Russia, which Moscow must be beginning to think it can't quite afford too much more of.

More generally in the longer term it would obviously undermine any capacity for Russia to make any kind of credible argument about an extension of the INF disciplines to China, which it is very much in its interests to have in the longer term. Russia really does have limits on its mid-range capability and would like those to be able to be addressed in the context of the potential China threat.

The upside for Russia in this is it might be perceived as enabling it to target with medium range missiles, the ballistic missile defence facilities in Europe. It would also have the capacity to deter - the way Alexei put it - anyone who is minded to be deterred by Russian capability to threaten almost anyone else around its perimeter who might be minded to throw medium range missiles at it.

When you balance out the plusses and minuses of not being constrained by the INF I think it does come down rationally speaking on the side of Russia staying within it. Albeit with a lot of huffing and puffing that we're seeing at the moment as a demonstration of its new approach to arms control culture generally.

The big issue is just how the rationality is going to weigh against the raw emotion. I think on balance, and that's the judgement we're making, cooler heads are likely to prevail, and I think the audience is right in a two to one majority for a no on this one for the next two years.

### **SARAH MACINTOSH**

Thank you very much. Of course there have been many moments of arms control pressure in the past and times when arms controllers were incredibly pessimistic. I'm thinking for instance of 1984 and then just three short years later we had the INF Treaty. Political circumstances can create themselves very quickly and sometimes that is a good thing.

I think we're ready to move on to the next question which is about India joining the Nuclear Suppliers Group. The question will come on screen shortly. There was a long panel discussion about this with incredible expertise just before lunch. Put the question up please. Thank you. The question is do you believe India will join the Nuclear Suppliers Group in the next two years? Please vote now, you've got ten more seconds. Thank you, close the vote and count please.

At the heart of this issue are two questions. Firstly how to ensure the continuing effectiveness of the world's leading rule making body for nuclear trade and secondly how best to ensure that that body and the rules contribute to non proliferation.

Or is it actually only among arms controllers and non proliferation experts that those are the real issues for that question? Beyond these walls and our community are these questions broader and more about geopolitics and changes in power across the world? Do we have the time for the vote? In that case we'll come back to that.

I'm going to ask Bill. You don't think this will happen in the next two years. Why not and what's going to stop it?

### **WILLIAM POTTER**

I'm going to try to sustain my optimism for at least one more question here so I in fact voted no and would like to believe that the correct answer to the question is no. I say that because we face many acute proliferation and other nuclear challenges most of which we have very little control over. In the case of India and the nuclear supplier's group however the damage to the international non proliferation regime would be in my view self inflicted and unnecessary punishment.

I like to think that the reasons to forestall Indian membership in the NSG are so compelling that membership is unthinkable. Although I grant that maybe attributing too much rationality to the decision making process in many countries.

In fact some of the arguments that one would make today with respect to NSG membership for India could have been made and in some instances were made although not adequately with respect to the US India deal of 2005 and the NSG exemption previously granted to India.

Let me highlight a few of those points and I apologise for not only missing what I'm sure was an excellent discussion earlier but not having had the opportunity today to hear from a number of my good friends and experts such as Rakesh Sood and Bob Einhorn.

I would make the case that India remains a nuclear weapons possessor outside of the NPT and to admit it to the NSG would be to devalue membership in the non proliferation treaty as a non nuclear weapon state.

Secondly I think the US India nuclear deal and the NSG exemption produced no meaningful change in Indian behavior with respect to nuclear non proliferation and disarmament. In part because neither the United States nor the international community were really prepared to walk away from the negotiating table. That's not the way to negotiate a deal and so we didn't secure what we might have secured if we had been more prepared to have walked away.

What we do find now is a situation where many countries today simply ignore both their politically and legally binding obligations that were taken previously not to trade with a country lacking comprehensive safeguards.

On the political side one can point in particular to the principles and objectives decision taken in 1995 as part of the package of three decisions and a resolution to extend the treaty indefinitely. I have in mind in particular paragraph 12 if anybody wants to put that up on your screen.

More consequentially I think today we see a number of parties to legally binding nuclear weapons free zones. Either conveniently forgetting the obligations that they took or wilfully acting contrary to their legally binding obligation. So that's not good for international law, it's not good for nuclear weapons free zones.

Further I would argue the NSG already has been seriously weakened by the 2008 exemption and has lost much of its credibility. Witness the export behaviour of China and others who now basically do whatever they wish without regard to the NSG guidelines.

Finally trying to remain somewhat optimistic here I would argue that it is because the strong arm tactics used by the United States, France, Russia, an apology to my distinguished chair, the UK in 2008 to obtain an exemption for India continue to reverberate.

They are likely to strengthen the backbone of at least some of the NSG members whose votes would be needed to reach consensus to admit India to the nuclear suppliers group. I see hopefully wisdom prevailing, thus the reason for my optimism and my vote of no.

## **SARAH MACINTOSH**

That would leave a potential major exporter outside of an export control regime. Can you imagine an alternate means of constraint that would help with that?

## **WILLIAM POTTER**

Can you imagine the decisions that countries that joined the Non Proliferation Treaty as non nuclear weapon states, if in fact they had believed they could get the benefits of states that were outside the NPT - I could point to a country such as Brazil as an example.

It would be interesting if we asked a hypothetical, would Brazil have chosen to join the NPT as a non nuclear weapon state if it observed privileges being given to India in the fashion that we're contemplating today? That is another question.

## **SARAH MACINTOSH**

Emily, you voted yes, is that a non-proliferation judgement or is that more a kind of raw power in the new world judgement?

## **EMILY LANDAU**

Well first of all it's nice to see that I continue with the pessimism and I'm with the minority. If we were talking about Iran I think I'd be in a smaller group. Look the deal with India, you could make the same case with regard to the NPT obviously. A lot make that case.

We saw again how it's arms control in context and when the context of international relations is such that there are strong powers that want some deal that overrides that purely non proliferation or arms control thinking then the deal goes through.

We heard in the earlier panel that the original deal with India was mostly about US India relations. The question is how that will play out this time. I asked in that panel, I addressed a question to the panel, and I asked if the reason for the deal was US India relations, India's non proliferation record, and the fact that India needed to be taken out of its nuclear isolation why was that same logic not applied to Israel?

The answer that I received from the panel was basically politics and international relations and China and the market. This is what is driving these decisions and the question is how much the United States right now wants to push this through and how much it wants to use its political clout in order to convince those that are opposed to this decision to turn their opinion around.

I think it all comes down to that arena. It's politics, it's international relations, and the whole NPT frame we see how international politics will override that. When the interests are strong enough they will trump these other considerations that have to do with the non proliferation regime. We see it in other issues as well.

## **SARAH MACINTOSH**

Thank you very much, Zia, sorry Gareth did you want to speak next?

## **GARETH EVANS**

We're being asked about the politics of it rather than the morality. What will happen rather than what should happen. Just a quick word on a question of principle, I'm not quite as hung up as Bill about the absolutism of the principle of not bringing non NPT parties within the nuclear trading regime.

I don't think it was well done in 2008 because a full scale criterion based approach was not adopted. We did take account selectively, or the US took account and then shoved it down everybody's throats on a couple of things. India's history and India's willingness to sign up to something in the nature itself of significant safeguards combined with export controls.

We didn't get any other benefits in the form of any kind of commitment on CDBD ratification or FMCT moratorium or for that matter the big goal on getting agreement on arms limitation. But had those criteria been satisfied then I don't think the fact of NPT membership by itself should be a showstopper for India, Pakistan, Israel, any of those three.

On the politics of it the reality of it is the NSG is a like minded group of just under 50 members, it works by consensus, any single country can block and there's not a lot of signed consensus at the moment about India's accession.

China is perhaps the most obvious candidate in the short run to be a blocking force although improving by that relationship between China and India might work against that over time. More importantly I think a lot of countries are feeling bruised by the 2008 experience, the sense that this wasn't a particularly principled decision, it was shoved down their throats.

Countries like Austria and Ireland and New Zealand and so on are certain to be deeply reluctant to offer consensus. Of course there is safety in numbers if you're in the consensus denying business. If they're able to be picked apart and only one or two countries holding their hands up they probably won't stay courageous for very long.

In this context one doesn't get the sense that the United States is on nearly as much of a crusade on this issue as it was with the original agreement in 2008. Maybe that will mean that it will be some time yet before that consensus emerges.

Beyond that there are a few difficulties that have shown up since 2008 in the implementation of the arrangements for the India US deal in particular with India being deeply reluctant to sign up to accounting and tracking mechanisms of the kind that would give external suppliers confidence in what happens.

That's been resolved in the case of the US by agreeing to put the stuff, as I understand it, into fuel rods. Maybe that will be the solution for the Australian concern at the moment, which is also hanging in the balance about how our particular bilateral arrangement with India will actually be operationalised.

There is real concern in Australia. Not so much from the government itself which is very Realpolitik about all of this but a lot of other voices saying that unless we get confidence that Australian origin nuclear material is going to be properly accounted for and tracked we shouldn't be in the business. This is a serious inhibition.

In the event, I think the final point to make is that it will simply take time. Even if in the long term as I suspect Indian membership does prevail I think there are so many issues at the moment, there are so many bruises out there yet to heal. There are so many dynamics at play that I certainly can't see this happening in the next two years. For that reason I think no is the appropriate vote.

**SARAH MACINTOSH**

Thanks very much. You've written, Gareth, that no disarmament or non proliferation agenda would be advanced by Australia maintaining a nuclear export ban on India. Which puts it straight to the question that Bill raised about Brazil. If advantages are available by staying out of the NPT, what incentive is that and how would other countries...? What would you say about that?

**GARETH EVANS**

Sorry, I missed the first bit.

**SARAH MACINTOSH**

You've written that no disarmament or non proliferation agenda will be advanced by Australia maintaining a nuclear export ban on India.

**GARETH EVANS**

Yes, well that's mainly just a rhea politic response of my own to the reality that the world had moved on. The NSG decision had been taken. No new demands had been made of India, which India acceded to, which were going to help advance the disarmament and proliferation agenda.

Equally nothing much was to be gained in advancing that agenda by continuing to rail against that. Certainly nothing much would be gained for the Australian tax payers and country if we weren't able to, as the third biggest supplier of uranium in the world if we inhibited ourselves in an environment where nobody else was feeling inhibited. That wouldn't be a fantastically smart thing to do. There was an element of rhea politic in the way I responded then.

**SARAH MACINTOSH**

Zia there's some evidence of the membership of export control regimes as entry points into the non proliferation mainstream. I'm thinking here of France and their plans to export nuclear material that changed really when they joined the NSG and so on. What's your view on this?

**ZIA MIAN**

In the panel of the assessment on the US India deal earlier today someone asked the panel what was it all about. George Perkovich said China and markets, as Emily mentioned. You would think that given the enormous geopolitical importance that the US gives now to China and the importance of markets in shaping policies here as well as in places like Australia and others that it would be a no brainer.

That just in the way that they managed to get India, to get the sanctions lifted, both the US domestic sanctions against India and the international sanctions against India lifted that two years is not a long time. Given those kinds of interests at play to get India into the NSG. I think that no is probably an interesting answer because it raises the question so what are the obstacles to large geopolitical, geo-economic forces.

The answer is I think domestic politics. The promise of the deal that the Bush administration made was that it would bring thousands of jobs and lots of work for US nuclear reactor exporters. Lo and behold not very much has happened.

A large reason for that has been domestic politics in India. Not just enormous determined protests by Indian communities about having reactors dumped in their countries without their consent. What we've seen is the Indian government responding by massive systematic repression of peaceful local communities and environmentalists.

For those of us who follow anti-nuclear politics around the world that is pretty typical whether you're a democracy or not, that this is how you deal with opposition when it comes to things nuclear. But the fact is that has been sustained in India and the idea of citing lots of reactors in India is now seen by anybody as a huge uphill battle.

China and markets on one side but getting anything to actually happen in India realistically now seems to be a distant prospect. Who's going to invest the political capital to make it happen? It's not that the Indian government can say, look, we're all ready for you, so come on hurry up. They can't promise that.

The other part of it I think is that coming back to my answer to the previous question, think about the nuclear supplies group. Talk about old fashioned, I mean really, talk about old fashioned! This is something that was thought up in the early 1970s, we guys have all this advanced hi-tech.

They won't be able to build anything for themselves. If we control technology we control the nuclear future. The world has not worked that way. The same presumption lay underneath the NPT. That when it was negotiated the presumption was that developing countries seeking nuclear weapons would have a hard time and they would need nuclear sharing and cooperation and various things.

What we've seen is that the success of the development enterprise, and of nationalism and of capitalism, and of the spread of knowledge and education has rendered a lot of this export control process almost beside the historical point given where we are today.

The case could be made that for prestige value you can say, yes, I want to be a member, but that's like wanting to be a member of one of those clubs that only lets in rich old white guys with ties and cars! It may make you feel like you've arrived but it doesn't actually say very much about how you've got there and where you're wanting to go in other ways.

The fact that it's more interesting to think about why India won't get into the NSG. Hopefully at some stage the Indian government will have the good sense to say we don't want to be part of it any way.

**SARAH MACINTOSH**

Bill, the NSG is old fashioned and beside the point, yes or no?

**WILLIAM POTTER**

I think it's old fashioned, I don't think it's beside the point. I think it's been damaged severely and I think India membership might damage it in a fashion that might make it almost irrelevant.

**SARAH MACINTOSH**

Gareth, it's old fashioned.

**GARETH EVANS**

Yes, it's old fashioned but I mean the NPT is old fashioned too. A lot of this stuff is old fashioned but you hang onto it because it is an important part of the international armoury and NSG does have credibility problems of exactly the kind that Bill has described.

We have to work hard to restore its credibility but equally we have to work hard with BSI and all these other surrounding mechanisms. The informal mechanisms as much as the formal treaty mechanisms if we want to keep the world safer and saner.

For all the metaphysics of Zia's descriptions of things I think the real world of harsh practical political operations demand that we hang in there behind these instruments that we've got.

**SARAH MACINTOSH**

Difficult to imagine controlling the exports of some of these materials with without a mechanisms of controlling the exports of these materials.

So we'll go on to question three, would you put it on the screen please. In this question you are voting yes if you believe that the Democratic People's Republic of Korea, North Korea, will conduct at least one more test in the next two years and no if you don't. The vote is open.

I think it's fair to say that under previous leadership there was something of a pattern to the North Korean program and also that North Korea today is quite difficult to predict. There are clearly drivers in both directions for the policy of the government.

On the one hand there are reasons to test, technical, political and financial. There are reasons not to and to come back into compliance with the WMD regimes, including a string of United Nations, Security Council resolutions. Some international offers have been on the table and some other things that DPRK wants from the rest of the world.

So ten more seconds for voting. And we're closing the poll, and please do the count. So Emily, you voted yes, and you've written that DPRK has technical reasons and political incentives to test again, can you talk us through those?

**EMILY LANDAU**

Sure. This is one where I have a little bit more confidence I think in my answer of yes, that there is a likelihood of over 50% of another nuclear test by March 2017. First I mean a pattern has sort of been established, there was a test. Oh, wow, look!

**SARAH MACINTOSH**

Put the results on the screen please - sorry to interrupt you.

**EMILY LANDAU**

No, that's fine, glad to join the majority this time. There have been three tests, 2006, 2009, 2013. It seems that we're up for another one by 2017. Of course there are reports from time to time that certain preparations are being made in North Korea for another test. It hasn't happened yet but it's the same pattern that we saw in the past ahead of each nuclear test.

Therefore it really looks like in this case we can, with a stronger degree of confidence, say that there is very likely to be another one. I have to say that on the political side Kim Jong Un assumed leadership in late 2011 but still I think very few people if any have a clear idea about his plans, about his strategy.

I'm not sure he has a clear idea about his plans and strategy. There is a strong element of the unpredictable here. He made a deal; he assumed leadership, there was a deal in February 2012, quite a good deal. Everyone was very happy that North Korea would stop enriching, it would not test. No nuclear tests, no ballistic missile tests but a year later after he actually conducted a ballistic missile test there was a third nuclear test in February 2013.

It's not clear; at the time there was a sense that maybe he was following the same pattern of his father but now it's very unclear. I studied negotiations with North Korea up until late 2011, these negotiations obviously unfolded in parallel with the negotiations with Iran and I was looking at...I was comparing and contrasting these negotiations.

With Kim Jong Il there was a pattern that could be identified in his behaviour. It allowed us at least to understand the decisions that were being made if not to predict, at least to a degree. I think when North Korea under Kim Jong Il would display crisis making behavior it was for a purpose. It was normally in order to get the United States back to negotiations.

It would usually happen at a time when the United States was less interested in negotiating, North Korea would do something outrageous, try to get the United States back to the table. North Korea's preference of course was always bilateral negotiations with the United States. The United States made a decision that it would proceed only in a multilateral context.

It would conduct some bilaterals and get North Korea back to the six party framework and at the end of the day when North Korea did return to the six party talks the result would normally be additional economic assistance to North Korea. I think it sold Yongbyon more than once.

There was another motivation that was probably there to demonstrate its capabilities to potential buyers. We know that North Korea is willing to share its technology, its knowhow, its component with whoever can pay hard cash. Again, now it's less clear. Nevertheless I would say as I said at the beginning it's very likely that it will happen. Maybe this time in order to demonstrate another stage in North Korea's nuclear capability.

## **SARAH MACINTOSH**

Gareth.

## **GARETH EVANS**

Well I'm obviously the extreme outlier both on the panel and in this group so I do need to explain why I'm running the risk of having egg on my face not only over the next two years but maybe the next two weeks. I think there are some reasons I can advance.

I've long taken the view that these guys are bad but not mad. Taken the view, and we've seen ourselves, that the huff is not always followed by much puff. As with all the threats in the last few months last year to move down the testing path after Korea was embarrassed in the Human Rights Council.

I think the starting point is to appreciate that unlike the history of the United States and Soviet testing Korean testing has never been driven by technical imperatives but at least not nearly as much driven by technical imperatives as perceived political calculations. There was a three to four year gap between both the earlier test in 2006-2009 and then between 2009-2013.

I don't see any particular reason to believe that there will be any accelerated pace in the future for three or four reasons that I can remember. The first is with the 2013 test North Korea did demonstrate beyond any reasonable doubt that it did have a workable nuclear explosive device.

It might not have been delivery ready but it was a bomb and therefore satisfied the political imperative to demonstrate to the world it was in effect a nuclear armed state with whatever deterrent virtue, deterrent advantage flowed from that.

Secondly the notion that North Korea will need, which I don't think is seriously pursued but just to mention it. The notion that North Korea will have to proceed with technical testing to ensure they have a weapon which they can sell to someone else with demonstrated workability I think is just beyond North Korea's thinking at the moment.

They know perfectly well how much intelligence scrutiny they're under. They know perfectly well how the proliferation security initiative and all these other strangleholds are working on them. I don't think they would believe they would have any realistic opportunity of getting away with that. So I think we can put that to one side.

I think it's also the case that North Korea, if you take they view they're not completely nuts they must have come to the judgement that any actual use of a nuclear weapon would be catastrophic for them. The country would be reduced to a car park if not necessarily by nuclear means certainly by conventional means and the regime would be annihilated with it.

There's no immediate imperative against that consideration to make sure that you've got a weapon that will actually work in a combat situation. Beyond all that I think there is the consideration if you think these guys are capable of some kind of rational cost benefit risk reward calculation there are a number of risks associated in them going down the path of a further explosive test at any time in the foreseeable future. Which can be summarized basically as irritating beyond belief. Upsetting beyond belief.

Every other one of the parties with whom they're presently dealing and with whom in various degrees they need to have some relationship, China was manifestly extremely unhappy with the 2013 test, it would be equally unhappy with any further test at any time in the immediately foreseeable future or reasonably foreseeable future.

It was manifestly capable of causing the DPRK real damage in terms of fuel and food supplies and so on. The North Koreans are very conscious of that. As far as Russia is concerned Russia is becoming increasingly important to DPRK to reduce its dependence on China.

It would not be terribly smart in this context for DPRK to be prejudicing that relationship with Russia by having a test which Russia has made very clear in its response to the 2013 test it would deplore.

As far as Japan is concerned, resolving the abduction issue is important to the DPRK as a way of getting access ultimately to the \$10 billion worth of reparations that are outstanding. There is

not particular advantage that DPRK could possibly get in this relationship with Japan. [unclear] South Korea speaks for itself.

As far as the United States is concerned the notion that the US could possibly be persuaded again by outrageous behaviour from North Korea, which I think was one of the points that Emily made, to come back to the bargaining table, is I think as people have said, the horse that has been sold already two or three times and nobody is going to buy it again.

I don't think the US is particularly in a mood at all to negotiate with North Korea at the moment about anything. The notion that it could be jolted into acquiescence in the next couple of years by some more outrageous behaviour by the North is not I think a starter. And of course it can hardly be encouraged into such talks.

When you add all those factors together I think there's enough room for doubt certainly to put me on the side of saying no, I don't think this will happen despite the overwhelming view of the rest of you that it will.

### **SARAH MACINTOSH**

Gareth I'm going to come back to you if I may because you've written that one of the reasons on the other side of the argument for testing is domestic politics in DPRK. As representative of a country for that region could you say something to the rest of us about that?

### **GARETH EVANS**

Well, domestic, who of us can know about the domestic politics there? We can assume there's an awful lot of national pride stuff, chest beating stuff, goes into this. To the extent they need to do outrageous military things to keep nurturing that.

Missile tests are a lot less risky options for them and also has the advantage of - they do need to do some more technical testing there to ensure their missiles solve their re-entry problems and so on. So if they want to be credible in terms of having deterrent capability.

I certainly don't exclude the possibility of more missile tests in the relatively near future. But in terms of satisfying the political hunger for testosterone I don't think the need to do another explosive device. 2013 was not a bad demonstration that they had something reasonably big that could go bang and I think that enough to keep the domestic environment, particularly since they've e squashed it anyway, keep them relatively content with the courage of their leadership.

### **SARAH MACINTOSH**

Zia, you also voted yes, that you did believe a test would happen.

### **ZIA MIAN**

Yes, I agree with everything that Gareth said about why they wouldn't test and yet asked the question why would they given all of this. It's not necessarily clear to me that some of these reasons didn't apply previously to some measure but they still went ahead and tested anyway.

I think from the point of view of asking so where are they in their nuclear weapons program and who gets to decide where this nuclear weapons program goes is perhaps an interesting question that might shed some light on whether they would or wouldn't do a test.

If the issue is that the North Korean nuclear weapons program is under such tight political control that it's basically being used as a signalling mechanism that some people seem to present it as that makes it pretty unusual actually.

In most countries with nuclear weapons what you see is that there is actually if not driving the initial move towards a nuclear weapons program once a country makes nuclear weapons you get a very powerful strategic enclave that grows around weapons programs.

In many countries it actually creates the program in the first place but then it grows around that program. If you actually ask the question so what happens if you stop testing, what happens to that program, what happens to its claim to resources and political power in the domestic institutional process then you get a problem. We've seen this in the United States.

The United States signs the test ban and what happens, the US nuclear weapons laboratories hold the US government hostage and say yes, we will let you have this treaty but only if you give us as much money not to test as you gave us to test. As well as enough computers so we can play at testing forever.

This goes through year after year now, right, where the weapons labs write to congress, well yes the arsenal is safe etc, threatening that we might say it's not so keep giving us money. So I can imagine similar processes playing out in North Korea.

I'm sure the North Korean nuclear weapon scientists are just as bureaucratically smart as the department of energy guys at Los Alamos and elsewhere. Thinking well we can say this also that well you know uranium, hmmm, plutonium yes, uranium, hmm! So we have to have another test otherwise give us more money.

It's not just them, they all do this, and so I can actually see a reason why from the North Korean political decision making point of view it actually serves multiple political purposes to say all right, go ahead, play.

The larger question that we have to ask though is that in the process of carrying out these nuclear tests the reaction that we get from the international community is oh my God they've tested again.

I recommend to you this amazing little video that is on the website of the Comprehensive Test Ban Treaty Organization. It's by a Japanese artist. What he's done is he's taken all the nuclear weapons tests that have ever happened and put them on a picture of the globe and put a compressed time line on it.

When you watch it you hear the noise from each test going ping, ping, and light lights up wherever that took place. And so the history of 70 years of about 15 minutes and you can see how the United States and the Soviet Union and Britain and France and others went berserk in carrying out nuclear weapons tests.

The irrationality and the insanity that Gareth attributes to the North Koreans, it actually comes with nuclear weapons!

**SARAH MACINTOSH**

So is that really what they say, plutonium yes, uranium hmm? Maybe it is.! Bill who gets to decide where the North Korean nuclear program goes?

**WILLIAM POTTER**

I think we don't have a clue. I don't think any of my distinguished colleagues really have a clue so this is a case where it's like the monkeys throwing the darts here.

**GARETH EVANS**

Speak for yourself!

**WILLIAM POTTER**

I always speak for myself Gareth! If I were a gambler I would argue that the big nuclear surprise the DPRK may have in store for us is actually the deployment of radiation weapons that we tend to associate more with non state actors rather than with nuclear weapon states. These are essentially radiological dispersal devices that don't require tests.

I guess what I would encourage my own government and others that are interested in questions of deterrence is to think a little bit more about the possibility of a state actor pursuing a radiological weapon and its implications for deterrents.

**SARAH MACINTOSH**

Thank you very much. We will now go to the fourth question which is on the which is on the Comprehensive Ban Test Treaty. Please put it on the screen. So this question if you believe that one of the Annex 2 States will ratify the CTBT in the next two years you're voting yes. And if you believe that none will ratify in the next two years you're voting no. Poll is open please vote.

This is a really interesting case of a treaty that has not yet entered into force but is already having effect. All but one state is adhering to the ban. The monitoring system is nearing full capacity and is capable of detecting explosions, and almost all the non ratified states are actively participating in monitoring.

It's difficult to avoid the conclusion that this is a treaty that everybody wants, yet it has not yet entered into force. So while the counting, while you're still voting, you've got another ten seconds please, I'd like to pay tribute to the CTBTO, to its executive director who has been here with us this week and to the Hashemite Kingdom of Jordan for the successful conclusion of the integrated field mission last year. A great success.

The vote is closed. Put the figures on screen please. This is first instance where the panel have all voted in one direction but you think they're wrong. Or some of them.

**EMILY LANDAU**

Most think we're right.

**SARAH MACINTOSH**

Well nearly 40% of you think they're wrong, quite a big number. So if the 37% are right and one state will which is the state most likely, Zia?

**ZIA MIAN**

You should ask them.

**EMILY LANDAU**

That's what I was going to say, you should ask them!

**SARAH MACINTOSH**

I'm going to put them on the spot in just a minute but I'm taking shout outs. Which is the state most likely? Iran, Israel, China, Egypt. So we've got four of them, anyway we know who the Annex 2 States are. Very good. Zia.

**ZIA MIAN**

How am I supposed to explain their decision making. I won't try, I'll try and explain why I didn't think any of them were going to ratify. At least in the time period that we're talking about it's hard to see any new compelling process coming into play that will change the decision making in any of the states that have yet to ratify.

We would dearly love to see the Israelis ratify the CTBT, since they don't have nuclear weapons what is there to lose? We take them at their word on settlements and on nuclear weapons, right? [Applause] I still said no and that's because we saw who won the elections and that is the way that it is.

Certainly the United States is not going to make this an issue as it doesn't with the settlements. That takes them off the table. The Egyptians, we let them get away with overthrowing elected governments because we don't like the elected government. God forbid we should put any pressure on them either.

Who does that leave? The poor Iranians who have had to put up with the United States and its anxieties for such a long time. I don't see Tehran giving this up also. I would like to see Pakistan sign, but there's no hope of that either given that the United States can't be bothered to press Pakistan on these things.

In the same way it won't press them on lifting the block on talks on a fissile material cut off treaty. The idea that Pakistan by itself can hold off the entire international community, which wants a fissile material cut off treaty, and little Pakistan all by itself says no and the world stops. It tells you where people's priorities lie.

The fact of the matter is that in none of the cases that are actually in play now is it a priority of anyone to get them to ratify.

**SARAH MACINTOSH**

So actually I asked the question which country did you think was most likely. I'm going to give Emily the right of immediate reply.

**EMILY LANDAU**

I'm very lucky that our very capable ambassador to the IAEA and the CTBTO was seated here yesterday and I think explained very clearly Israel's position on that.

I think she said two things that are very important. When Israel signed it didn't just sign, it signed with intent to continue its ratification. But she also explained very clearly that we have certain realities in the Middle East in particular states that join international arms control and non proliferation treaties and then proceed to violate them.

Therefore the record of compliance with these non proliferation and arms control treaties in the Middle East is quite poor. This gives cause for quite a bit of concern on the part of Israel as far as the utility of joining these treaties.

I think she also mentioned that if we do reach the point vis a vis the regional processes that might be ongoing that we talk about these kind of deals and verification mechanisms that these will be done in a regional rather than an international context. Thanks so much.

**SARAH MACINTOSH**

Gareth, in one word, which country do you think is closest to the ratification?

**GARETH EVANS**

Any hope we had of rationality from Egypt or Israel has gone out window in terms of what I've heard this week and last week in Vienna and Geneva. I think Iran is a possibility if this deal comes together by the middle of the year they'll be looking for ways of capturing a bit of high ground and they've got nothing to gain technically.

I don't think any of the countries have anything much to gain by keeping open the testing option. But probably the best chance is actually China. China is, it's whole doctrine and everything else is totally clear about what - I hope it's clear, about what it wants to do. It really had an awful lot of PR kudos to gain internationally by getting ahead of the United States and just not waiting.

Never, in all my conversation with Chinese interlocutors over the years I've never been able to get any kind of rational explanation as to why they feel they have to wait on the US. Other than just, we're going to do that. So maybe, just maybe, that's a chance, but not within two years, not really.

**SARAH MACINTOSH**

Bill, you're going to take us out.

**WILLIAM POTTER**

I had the privilege of having breakfast with Dr Zurbow the day after he had the dream that he told us about yesterday. Which was that in Menlo Park last fall - and unfortunately in his dream

there was no reference to the country that ratified next. All he knew was that it was March 26th 2016.

I wanted to say one thing if I may, Madam Chair, if I may, by way of a kind of conclusion. I suspect I'm on this panel because I've written a lot of books with colleagues on the issue of forecasting and I'm typically not shy about making predictions.

I also recognize the wisdom of what Nassim Taleb in his book *The Black Swan* called the empty suit fallacy. According to this fallacy experts are no more likely than others to predict many kinds of events but they tend to be far more likely to have confidence in their predictions.

To discount dissonant data and to defend conditional forecasts long after they should have been abandoned. As such I'm very chastened by my experience this afternoon. Recant all of my predications and advise all of you to do the same!

**SARAH MACINTOSH**

Fantastic, thank you very much. Thank you very much for your voting, you're not bound by any of it. I advise you too to recant anything you voted for and think again tomorrow. Thank you. Good afternoon.