

# The Relevance of Nuclear Deterrence Today

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**PARIS ADVANCED RESEARCH CENTER**

# *The relevance of nuclear deterrence today*

## **Introduction**

Appeared at the end of the Second World War in 1945, notably after the use of two atomic bombs by the Americans on the Japanese cities of Hiroshima and Nagasaki<sup>1</sup>, it plays an essential role in preserving international stability and peace. The images that followed the atomic bombing of Japan shocked people's consciences around the world and made them realise that Man had developed a weapon capable of causing massive destruction unimaginable before. Nuclear deterrence was the cornerstone of the conflict between the USA and USSR in the context of the Cold War. Indeed, this concept of nuclear deterrence has played a central role in the defense strategies and relations of the "big two", namely the Soviet bloc and the American bloc<sup>2</sup>. Before getting to the heart of our paper, it is essential to give some historical and chronological elements to better understand the process of nuclear deterrence, to analyse its evolution, and to evaluate its relevance.

The United States was the first country to acquire nuclear weapons in July 1945. After Nazi Germany surrendered in Europe on the 8th of May 1945, the United States intended to end the war in the Pacific against the Japanese Empire, in order to bring the Second World War to a definitive end as soon as possible. In this context, planes belonging to the US Air Force dropped two atomic bombs on the cities of Hiroshima (Little Boy bomb) and Nagasaki (Fat Man bomb), respectively on the 6th and 9th of August 1945<sup>3</sup>. These events forced the Japanese leaders to

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<sup>1</sup> Tertrais, Bruno. « L'arme nucléaire sur la scène internationale », Bruno Tertrais éd., *L'arme nucléaire*. Presses Universitaires de France, 2008, pp. 67-103

<sup>2</sup> Goldblat, Jozef. « Succès et échecs de la maîtrise des armements », *Politique étrangère*, vol. hiver, no. 4, 2006, pp. 823-835.

<sup>3</sup> Tertrais, Bruno. « L'arme nucléaire sur la scène internationale », Bruno Tertrais éd., *L'arme nucléaire*. Presses Universitaires de France, 2008, pp. 67-103

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surrender on the 2<sup>nd</sup> of September 1945, bringing the Second World War to a definitive end. After the end of the war, there was renewed talk about arms control and disarmament, particularly in the context of the newly created UN and its related institutions<sup>4</sup>. However, the context of the Cold War and the fundamental opposition between USSR and the U.S led to an arms race between the two blocs. It soon became apparent that the possession of nuclear weapons was not only posing a direct threat to the adversary, but also, it became a key geostrategic tool for whoever possessed them. It is in this perspective that, USSR first used the atomic bomb in September 1949<sup>5</sup>. Today, the five permanent members of the UN Security Council (UK, U.S, Russia, France, China) are officially recognised as possessing nuclear weapons. There are also three other recognised nuclear weapons states (India, Pakistan, North Korea), and finally Israel, which has nuclear weapons without official recognition<sup>6</sup>.

From an animated map of nuclear explosions, we have drawn the following table in order to highlight the number of nuclear tests per country and per year between 1945 and 1998<sup>7</sup>. In doing so, we would like to emphasise the extent of the arms race in the context of the Cold War.

### **Nuclear explosions between 1945 and 1998**

	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
<b>USA</b>	1+2	2		3			16	10	11	6	19	17	32	77
<b>USSR</b>					1		2		5	10	6	10	16	33
<b>UK</b>								1	2			6	7	5
	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
<b>USA</b>			11	95	47	45	39	47	42	56	46	39	25	26
<b>USSR</b>			59	79		9	14	18	18	16	19	17	22	24
<b>UK</b>				2		2	4	7		5				
<b>FRANCE</b>		3	2	1	3	3	1		3			8	5	4
<b>CHINA</b>						1	1	3	2	1	2	1	2	1
	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
<b>USA</b>	25	21	23	19	20	19	15	14	16	18	18	18	17	14
<b>USSR</b>	17	21	19	21	24	32	30	24	21	19	25	27	10	
<b>UK</b>		1		1		2	1	3	1	1	1	2	1	1
<b>FRANCE</b>	6	9	2	5	9	11	10	12	12	10	9	8	8	8

<sup>4</sup> Goldblat, Jozef. « Succès et échecs de la maîtrise des armements », *Politique étrangère*, vol. hiver, no. 4, 2006, pp. 823-835.

<sup>5</sup> Tertrais, Bruno. « L'arme nucléaire sur la scène internationale », Bruno Tertrais éd., *L'arme nucléaire*. Presses Universitaires de France, 2008, pp. 67-103.

<sup>6</sup> *Ibid.*

<sup>7</sup> « Animated map of nuclear explosions, 1945-1998 », *Youtube*, 13 Août 2010, [www.youtube.com/watch?v=856fWEltiXo&ab\\_channel=AllanDavid](http://www.youtube.com/watch?v=856fWEltiXo&ab_channel=AllanDavid)

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<b>CHINA</b>	1	1	1	4	1	3	1	1		1	2	2		
<b>INDIA</b>		1												
	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>		
<b>USA</b>	14	15	11	8	7	6								
<b>USSR</b>	23	16	7	1										
<b>UK</b>	1		1	1	1									
<b>FRANCE</b>	8	8	9	6	6				5	1		1		
<b>CHINA</b>	1	1		2		2	1	2	4	2				
<b>INDIA</b>													4	
<b>PAKISTAN</b>													2	

Reference: « Animated map of nuclear explosions, 1945-1998 », *Youtube*, 13 Août 2010, [www.youtube.com/watch?v=856fWEltiXo&ab\\_channel=AllanDavid](http://www.youtube.com/watch?v=856fWEltiXo&ab_channel=AllanDavid)

In total, there were approximately 2000 nuclear tests throughout the Cold War. As we can notice, many nuclear tests were carried out in the 1960's. Especially in 1962, when the Cuban missile crisis broke out between the U.S and USSR<sup>8</sup>. This year was very particular in that, this was the year in which the two powers conducted the most nuclear tests in one year during the Cold War. The crisis had become so great that the two blocs were on the verge of armed conflict<sup>9</sup>.

This crisis marked a turning point; on the one hand, the two major powers realised that direct armed conflict would be devastating for each side and would be against their respective interests; on the other hand, the two powers agreed to favour channels of dialogue, and the establishment of arms control. It was in this light that the first international treaties governing arms control and disarmament came into being<sup>10</sup>. At first, they were bilateral (between the two great powers, the main parties to these agreements) before being extended multilaterally.

Thus, it seems appropriate and important to introduce these agreements, focusing on the most important ones. In the first place, we will introduce the more relevant bilateral agreements, then we will mention the most significant multilateral agreement in terms of arms control, which is the Non-Proliferation Treaty (NPT).

<sup>8</sup> Graham T. Allison, *Essence of Decision – Explaining the Cuban Missile Crisis*, Harvard, Harper, 1971.

<sup>9</sup> *Ibid.*

<sup>10</sup> Goldblat, Jozef. « Succès et échecs de la maîtrise des armements », *Politique étrangère*, vol. hiver, no. 4, 2006, pp. 823-835.

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So, the first relevant agreement that we would like to introduce is the ABM Treaty (*Antiballistic Missile Treaty*). It was signed on the 26th of May 1972 between the United States and USSR. This treaty on the Limitation of Antiballistic Missile Systems prohibited the deployment of such systems for the total defense of the territory of both countries, as well as the creation of a base for such defense<sup>11</sup>. Anti-ballistic missile systems for regional defence were also prohibited, unless specifically authorized. Anti-missile systems were seen as unreliable, costly and vulnerable to countermeasures. However, each side retained the right to test fixed ground-based ABMs on specified polygons. Nor was it forbidden to develop anti-ballistic systems based on physical principles other than those prohibited by the ABM Treaty. This treaty was considered as the cornerstone of arms control. Nevertheless, the Americans withdrew from it in 2001, during the Georges W. Bush administration<sup>12</sup>.

Secondly, we have the SALT I (*Strategic Arms Limitation Talks*) agreement<sup>13</sup>. This one was signed at the same time as the ABM Treaty. It freezes the number of land-based Intercontinental Ballistic Missiles (ICBMs) and the same devices on US and Soviet submarines for five years<sup>14</sup>. The parties were free to choose the proportions between these various elements. The agreement did not affect the modernization of the weapons in question (with the exception of the freeze on the size of ICBM launchers), nor did it cover techniques affecting their invulnerability, accuracy or range<sup>15</sup>. The agreed procedures allowed both sides to replace obsolete types of weapons with modern designs. The number of nuclear warheads carried by each missile was not limited<sup>16</sup>.

Then we can mention the START I (*Strategic Arms Reduction Treaty*). It was signed on the 31st of July 1991. This treaty provided for deep cuts in the nuclear arsenals of the United States and the USSR. The parties agreed to reduce their strategic offensive weapons to equal levels over a seven-year period. The stockpile on each side would then be 1,600 strategic delivery vehicles and 6,000 deployed nuclear warheads, including 4,900 warheads on ballistic missiles; in the Soviet case, the agreement provided for 1,540 warheads on 154 "heavy" intercontinental ballistic missiles<sup>17</sup>. In addition, each side agreed not to have more than 1,100 warheads on

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<sup>11</sup> Goldblat, Jozef. « Succès et échecs de la maîtrise des armements », *Politique étrangère*, vol. hiver, no. 4, 2006, pp. 823-835.

<sup>12</sup> *Ibid.*

<sup>13</sup> *Ibid.*

<sup>14</sup> *Ibid.*

<sup>15</sup> *Ibid.*

<sup>16</sup> *Ibid.*

<sup>17</sup> *Ibid.*

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mobile ICBMs<sup>18</sup>. By reducing the number of warheads on the most threatening ballistic missiles, and by substantially cutting the total payload capacity of the missiles, the START I treaty reduced the nuclear attack potential of the superpowers<sup>19</sup>. It did not, however, achieve the stated goal of a 50 per cent reduction in the US and Russian strategic forces. By focusing on reductions in long-range missiles, warheads and delivery capabilities, the treaty left out gravity bombs; it only partially limited airborne missiles; and it left cruise missiles launched from sea-based platforms virtually unrestricted<sup>20</sup>. In addition, the parties could modernize their strategic weapons as older weapons were retired.

And the last relevant bilateral agreement is the START II Treaty, signed on the 3rd of January 1993. It established equal ceilings for each party's strategic nuclear weapons. These ceilings were to be achieved in two stages. By the end of the first stage, each side was to have reduced its total deployed strategic nuclear warheads to 3,800-4,250<sup>21</sup>. These numbers included warheads on intercontinental ballistic missiles and Submarine Launched Ballistic Missiles (SLBMs) or air-launched ballistic missiles. Of a total of 3,800-4,250 warheads, no more than 1,200 could be deployed on mirrored missiles, no more than 2,160 on shipborne missiles and no more than 650 on heavy ICBMs<sup>22</sup>. At the end of the final stage, each side would have reduced its total number of strategic nuclear warheads to 3,000-3,500. Within these limits, each side would be free to choose the level at which it wishes to establish itself. Only ICBMs carrying a single warhead were to be allowed<sup>23</sup>. The START II treaty was thus intended to improve strategic stability by eliminating mirrored ICBMs, which are most likely to be involved in a pre-emptive attack<sup>24</sup>. Its implementation was expected to lead to a two-thirds reduction in the strategic nuclear forces that USSR and the USA maintained at the height of the Cold War, but it has not been implemented<sup>25</sup>.

Now that we have introduced the main bilateral agreements, we will focus on the most significant multilateral treaty in terms of non-proliferation: the NPT (*Non-Proliferation Treaty*). This treaty was opened for signature on the 1st of July 1968. It stipulates that nuclear-weapon states undertake not to transfer to any recipient nuclear weapons or other nuclear explosive

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<sup>18</sup> *Ibid.*

<sup>19</sup> *Ibid.*

<sup>20</sup> *Ibid.*

<sup>21</sup> *Ibid.*

<sup>22</sup> *Ibid.*

<sup>23</sup> *Ibid.*

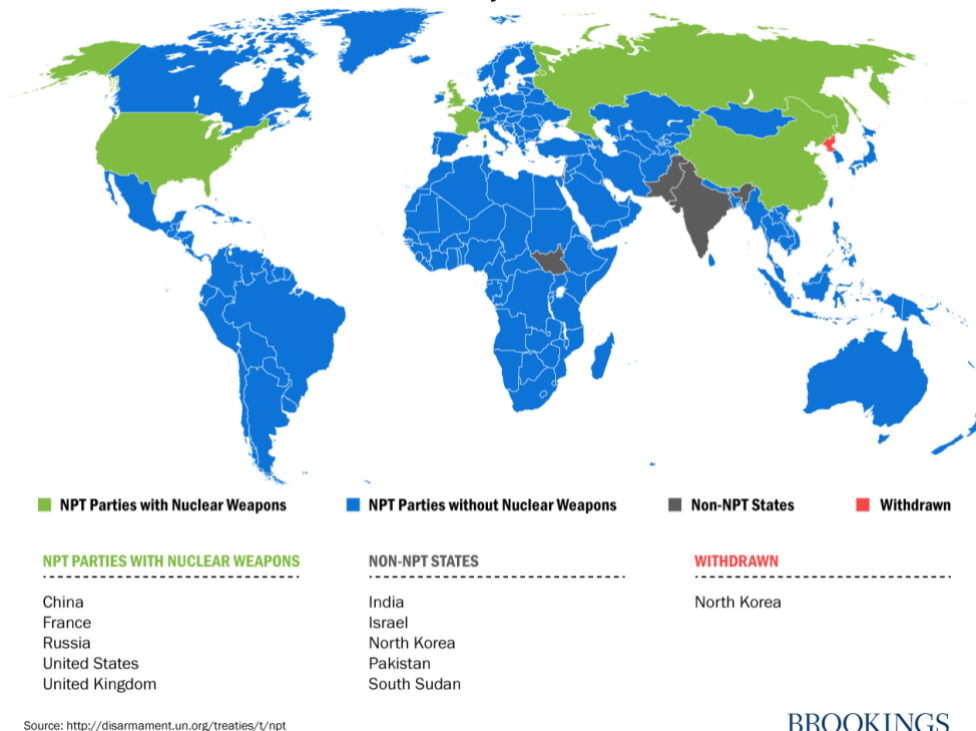
<sup>24</sup> *Ibid.*

<sup>25</sup> *Ibid.*

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devices, or control over such weapons, and not in any way to assist, encourage, or induce any non-nuclear-weapon state to manufacture or acquire them<sup>26</sup>. Non-nuclear-weapon states shall not accept nuclear weapons or control over such weapons and undertake not to manufacture them or receive assistance in their manufacture. The signatories may develop and use nuclear energy for peaceful purposes, and those who can do so must assist non-nuclear-weapon states to benefit from civilian nuclear energy<sup>27</sup>. They commit to good faith negotiations on a cessation of the nuclear arms race and a treaty on general and complete disarmament<sup>28</sup>.

**Parties to the Nuclear Non-Proliferation Treaty**



Reference: [www.brookings.edu/research/non-proliferation-challenges-facing-the-trump-administration/](http://www.brookings.edu/research/non-proliferation-challenges-facing-the-trump-administration/)

The NPT is critical to arms control: it combats nuclear anarchy and provides an incentive for the nuclear powers to reduce their arsenals<sup>29</sup>.

As a result, the idea that disarmament would lead to peace and security seems, fundamentally to be in the natural order of things: reducing the stockpile of weapons of potential belligerents

<sup>26</sup> *Ibid.*

<sup>27</sup> *Ibid.*

<sup>28</sup> *Ibid.*

<sup>29</sup> *Ibid.*

would mean that they would not be able to carry out their supposed mission of destruction. It is in this sense that the military powers of the second half of the twentieth century, aware of the danger of contemporary warfare, have undertaken numerous disarmament initiatives. The above-mentioned treaties such as, the ABM Treaty, the SALT I and II agreements, concluded between the United States and USSR during the Cold War, were of great help in ensuring that no open war materialized between the two blocks.

Yet, despite these treaties, the world today seems particularly unstable. It is therefore relevant to ask ourselves how effective these agreements really are, and whether the Nuclear deterrence is still relevant or not.

This study will therefore determine how disarmament, arms control and non-proliferation treaties face structural limitations in achieving their peace objectives, requiring a more pragmatic approach among actors. To this end, the first part of the paper will review the indispensability of these treaties. The second part will start from the observed limitations to approach alternatives in the formulation of the treaties. Finally, we will see in the third part of this paper that, what can make nuclear deterrence hold is not only that an actor is essentially convinced of its usefulness, but it can also be the result of the sum of particular interests.

### **I) Disarmament: an old phenomenon with new relevance**

Disarmament must be understood as a « far from new » phenomenon. Ayache and Demant point out that it has been inseparable for centuries with the end of a conflict and the restoration of peace<sup>30</sup>, which is then naturally imposed by the winner's side on the vanquished. However, a turning point was observed with the creation of the United Nations in 1945, firstly, in the face of the double shock of the scope of the second world conflict for the planet, but also of the solution chosen to end it: the atomic bomb; now confronting men with the previously unimagined capacities of their armaments. More than disarmament, it is now a question of arms control, since there is no longer a loser, the objective being to anticipate the risk of war in order to avoid it<sup>31</sup>. In the era of the "balance of terror"<sup>32</sup>, the nuclear bomb is the best example, the

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<sup>30</sup> Ayache, Georges, et Demant, Alain « Les impasses du désarmement », *Armements et désarmement*. sous la direction de Ayache Georges, Demant Alain. Éditions Complexe (programme ReLIRE), 1991, pp. 133-174.

<sup>31</sup> *Ibid.*

<sup>32</sup> *Ibid.*



major aim being not to have to use it<sup>33</sup>. Keeping nuclear weapons within a small circle of holders thus prevents anarchic development of nuclear powers, but also raises the question of the legitimacy of those who have the best weapons to impose the privilege on themselves<sup>34</sup>.

The fact is that, from the middle of the twentieth century onwards, the military capabilities of the powers formally worry their own holders. This is the observation made by Carol Cohn through the apparently anecdotal observation in her book of the use of metaphors linked to sexual vocabulary to evoke defence strategies<sup>35</sup>. This is certainly a symbolic admission of the fact that the protagonists of the Cold War intend not to have to use a strike force that they have difficulty naming. Also, it seems coherent that the Cold War was accompanied by strong arms reduction measures. Ayache and Demant speak of this period as the golden age of "arms control"<sup>36</sup>, for which they note in particular the influence of the American approach, which, according to them, had more influence than the UN recommendations themselves<sup>37</sup>. Disarmament is based on mutual trust, which is necessary to take the risk of not increasing or even destroying part of one's stockpile of weapons. The United States tried for a while to create this climate for negotiations. Despite a number of cyclical setbacks, this strategy has generally worked; one can only observe that recent history seems to point to the real usefulness of agreements in avoiding conflicts. However, this observation must be questioned in the post-Cold War era; while the hypothesis of the « end of history » seemed credible in the 1990's, Mutimer suggests that the geostrategic practices of the actors in international relations continue to prevail<sup>38</sup>. In a world that is no longer organized in a bipolar fashion, arms control can in theory prevent the emergence of new multipolar tensions with the appearance of new military and nuclear powers.

This helps us to understand why the use of treaties continues to serve as a reference point in international relations today, such as to induce actors like Iran or North Korea to give up their nuclear programmes under international norms. Nevertheless, as it will be developed in the second part of this paper, it seems that these agreements are losing their influence.

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<sup>33</sup> *Ibid.*

<sup>34</sup> *Ibid.*

<sup>35</sup> Cohn Carol, « Sex and Death in the rational world of defense intellectuals », dans *Signs*, Vol. 12, No. 4, *Within and Without: Women, Gender, and Theory*. Summer, 1987, pp. 687-718.

<sup>36</sup> Ayache, Georges, et Demant, Alain. « La maîtrise des armements », *Armements et désarmement*. sous la direction de Ayache Georges, Demant Alain. Éditions Complexe (programme ReLIRE), 1991, pp. 175-208.

<sup>37</sup> *Ibid.*

<sup>38</sup> Mutimer David, « Reimagining Security : The Metaphors of Proliferation », dans *Critical Security Studies - Concepts and Cases*, Keith Krause and Michael C. Williams, UCL Press, 1997

II) Faced with its limitations, the need for new disarmament strategies

First of all, in a context of influence of private economic actors (e.g. the large companies specializing in armaments) and the decline in the margin of manoeuvre of states in international relations, it is possible to ask whether the latter are not at risk of being influenced by the former in their military choices. Hartung demonstrates that Lockheed Martin was one of the most sought-after companies during the Cold War, receiving up to 29 billion dollars a year from contracts concluded with the Pentagon<sup>39</sup>. Since armaments are good for these industrial players, it is quite realistic that they continue to lobby for continued production today without being prevented from doing so by pacifist considerations<sup>40</sup>. In more directly political aspects, Goldblat points out other limits to the effective achievement of disarmament, especially today<sup>41</sup>. While the end of the blocs has given each country the possibility of acting as a « free electron »<sup>42</sup>, it is becoming more complex today to envisage arms control strategies, but also to prevent the possibility of reversibility of agreements (let us recall that the end of the 2010's seems to see the emergence of American and Russian withdrawals from agreements signed during the Cold War). One could therefore conclude that today it is only a relative and temporary peace that can be guaranteed by the signing of agreements. Of course, the threat of sanctions can play a role. But the richer the country is, or the more it is supported by a local power, the less influence they will have.

Finally, in a world that still seems set to be dominated militarily by American power for at least a few more decades, Goldblat notes that the USA confidence seems to have eroded sharply since the 2000's, an observation that seems even more relevant today. As regards the specific case of nuclear weapons, for which specific agreements have been signed on the basis that no new nuclear power should emerge, David notes that non-proliferation has certainly had positive aspects, by delegitimizing the use of clearly dangerous weapons<sup>43</sup>. However, peace and security are still far from being achieved, due to two configurations, a "post-nuclear world in the North

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<sup>39</sup> Hartung William D, « Prophets of War - Lockheed Martin and the making of the military industrial complex », Nation Books New York, 2012

<sup>40</sup> *Ibid.*

<sup>41</sup> Goldblat, Jozef. « Succès et échecs de la maîtrise des armements », *Politique étrangère*, vol. hiver, no. 4, 2006, pp. 823-835.

<sup>42</sup> *Ibid.*

<sup>43</sup> David, Charles-Philippe. « Chapitre 8. Le génie nucléaire retourne-t-il dans sa lampe ? », *La guerre et la paix. Approches contemporaines de la sécurité et de la stratégie*. 2e édition revue et augmentée, sous la direction de David Charles-Philippe. Presses de Sciences Po, 2006, pp. 233-256

and a pre-nuclear world in the South", according to the terminology proposed in 1992 by Lellouche<sup>44</sup>.

The great powers certainly no longer have any desire to fight with nuclear weapons, but an almost tacit recourse to traditional weapons is still quite possible. On the other hand, it is the "South" that could be the nuclear world of tomorrow, with the fundamental question of their rationality in not using nuclear weapons to settle their disputes (e.g., Israel/Iran, India/Pakistan); it is therefore in the South that peace seems very far from being achieved. Using the example of the Non-Proliferation Treaty, reviewed in 2010 by the signatories, Lapointe notes that there is a real risk that imperfections will lead to the gradual abandonment, through successive withdrawals, of a treaty whose aims are certainly laudable, but which is being undermined by the legalisation in international law of an injustice<sup>45</sup>. The real solution to avoid reaching this point, according to him, would be to redefine this treaty in a way that is more inclusive of all parties, including non-state actors, including citizens themselves; encouraging disengagement from military nuclear power should, for example, be accompanied by facilitating access to civilian nuclear power<sup>46</sup>.

Following his logic, it would not be enough to sign a treaty to achieve peace. But the chances of achieving it would be much greater with more balanced treaties, better reflecting their signatories, both states and civil society.

### **III) Disarmament policy versus vested interests at the national level: the case of the United Kingdom**

In this third and final part of our paper, we will try to demonstrate through a concrete case study of a nuclear power, the United Kingdom, that what can make nuclear deterrence hold is not only that an actor is essentially convinced of its usefulness, but it can also be the result of the sum of particular interests. To do this, we will rely on the article written by Nick Richie, who has examined this question and tried to provide some answers. The author is indeed an internationalist, not a sociologist, but he draws on this work to understand why the UK retained

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<sup>44</sup> David, Charles-Philippe. « Chapitre 8. Le génie nucléaire retourne-t-il dans sa lampe ? », , *La guerre et la paix. Approches et enjeux de la sécurité et de la stratégie*. Presses de Sciences Po, 2013, pp. 259-286.

<sup>45</sup> Lapointe, Alban. « Pourquoi une révision du Traité de non-prolifération ? », *Études*, vol. tome 412, no. 5, 2010, pp. 595-605.

<sup>46</sup> *Ibid.*

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its nuclear weapons during the 1990's and 2000's<sup>47</sup>. The British nuclear deterrent is mainly submarines and there are debates about whether or not to modernise this arsenal, which is extremely expensive<sup>48</sup>. It should be noted that when a state has nuclear weapons, there are significant costs involved: Research, Maintenance, Modernisation, Ancillary equipments, Infrastructures (whether the nuclear warhead is placed on a submarine, Telecommunications facilities). How rational is it for a middle power like the UK to keep this very expensive arsenal after the end of the Cold War?

Deterrence money in the billions of euros is not spent or invested in other public sectors but also for the military to meet more immediately necessary needs<sup>49</sup>. There is a question of rational choice behind this spending. According to the author, it is necessary to look at a combination of specific interests and different types of actors who all have a say in the UK's nuclear deterrence policy to better understand why the UK wishes to retain its nuclear arsenal<sup>50</sup>.

Firstly, the author mentions the political factors<sup>51</sup>. Indeed, in the UK, political parties have an interest in being elected and re-elected to assert a relatively strong security vision<sup>52</sup>. About ten years ago, the Labor Party included nuclear disarmament in their programme, and this did them a disservice<sup>53</sup>. Since then, we have noticed that the members of this party do not have a soft and gentle discourse on international policy (e.g., Tony Blair, who wanted to be humanitarian and very muscular)<sup>54</sup>. In the 1990's, when the Socialists were in power, they did not make nuclear disarmament a priority, but rather endorsed its continuation<sup>55</sup>. Indeed, when they came in power, left-wing politicians did not dismantle the arsenal, not because they were convinced that it is useful and necessary for national security, but because they wanted to avoid being punished by public opinion if they had not maintained these positions<sup>56</sup>.

Secondly, N.Ritchie uses the workers' argument. As a matter of fact, the unions and the heads

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<sup>47</sup> Nick Ritchie, « Relinquishing Nuclear Weapons : Identities, Networks and the British Bomb », *International Affairs*, 86(2), 2010, pp. 455-487.

<sup>48</sup> *Ibid.*

<sup>49</sup> *Ibid.*

<sup>50</sup> *Ibid.*

<sup>51</sup> *Ibid.*

<sup>52</sup> *Ibid.*

<sup>53</sup> *Ibid.*

<sup>54</sup> *Ibid.*

<sup>55</sup> *Ibid.*

<sup>56</sup> *Ibid.*

of companies working in the military and nuclear field have no interest in dismantling the nuclear arsenal, since it would mean losing their jobs<sup>57</sup>. It is interesting to see that they are not convinced themselves of the strategic interest of nuclear power. The main interest lies elsewhere; it is an interest in terms of guaranteed employment and the continuity of companies<sup>58</sup>.

Thirdly, the author puts forward the military argument<sup>59</sup>. And according to him, it is rather counter-intuitive as many of the military are not directly concerned with nuclear deterrence<sup>60</sup>. However, its whole architecture relies on infrastructures that serve other purposes for the armed forces<sup>61</sup>; for example, the need for mine-clearing ships in the event of war, ports and the removal of nuclear submarines, telecommunication means, aircraft for protection, the base where the submarines are, and so on and so forth. By extension we realise that nuclear deterrence is a component of something much larger. By removing it, we risk altering the whole ecosystem. In the armed forces, even if people are not convinced of the relevance of nuclear weapons in a post-Cold War context, they will not do anything to change the system in place because all the other infrastructures have a more direct utility. Special interest is out of step with deterrence.

Consequently, adding up these three perspectives, we realize that what keeps the nuclear deterrent going is not that one actor is essentially convinced of its utility, but the sum of particular interests, that seem to be eminently paradoxical and costly.

### **Conclusion**

Disarmament or arms control agreements, and in particular non-proliferation agreements, seem to be able to guarantee peace and security that all the players *a priori* want. Recent history has proven their effectiveness, notably by preventing the Cold War from becoming a nuclear conflict.

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<sup>57</sup> *Ibid.*

<sup>58</sup> *Ibid.*

<sup>59</sup> *Ibid.*

<sup>60</sup> *Ibid.*

<sup>61</sup> *Ibid.*

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However, they seem to be proving their limits, especially at the beginning of the 21st century; the increasingly likely non-compliance of certain countries and the withdrawal of agreements by the very powers that initiated them show that, in the long term, the agreements remain very weak in guaranteeing collective security. Perhaps the new generation of negotiators will have to show new creativity in drafting treaties that would be more inclusive and accompanied by counterparts.

Nevertheless, we must take into account the fact that, if we limit ourselves to that point, it would be quite negative, and we cannot rely solely on agreements to bring peace to the world. As a matter of fact, these disarmament agreements do have effects, even if they are not as spectacular as we would expect. The really important question to keep in mind is « what are the political effects of these decisions? » These decisions have political aims and sometimes unexpected political effects, leading actors to deviate from their usual actions, to adapt, to circumvent certain measures, etc. As a political scientist, this is much more essential. The question of effectiveness is more towards policy makers and activists, and we have to ask what it produces.

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