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Rising nuclear risk, disarmament and the Nuclear Non- Proliferation Treaty

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Q in footnotes refers to a question in oral evidence.

SUMMARY

The risk of the use of nuclear weapons has increased, in the context of rising inter-state competition, a more multipolar world, and the development of new capabilities and technologies. There are serious tensions between some of the nine nuclear possessor states—the five states the legitimacy of whose possession of nuclear weapons was recognised by the Nuclear Non-Proliferation Treaty (China, Russia, France, the United Kingdom and the United States), the three states which never signed the NPT (India, Israel and Pakistan) and North Korea, which signed the NPT but nevertheless developed such weapons. Irresponsible rhetoric, combined with a lack of communication between nuclear possessor states, creates serious risks of nuclear use due to misinterpretation and miscalculation. The benign circumstances which subsisted for nearly 25 years after the end of the Cold War, during which the risk of the use of nuclear weapons ceased to be a priority challenge to the international community, have ended.

We conclude that the nuclear possessor states should commit to the principle that a nuclear war cannot be won and must never be fought, and do all they can to reduce global tensions, support nuclear non-proliferation, and pursue nuclear disarmament. Dialogue between the nuclear possessor states is also essential. In particular, notwithstanding current tensions, the Government and NATO should be prepared to talk to Russia about nuclear strategic stability.

The maintenance of the existing international nuclear regime is of critical importance to long-term efforts to reduce the risks inherent in the possession of nuclear weapons. At the core of the regime is the Nuclear Non-Proliferation Treaty (NPT), which has three pillars—non-proliferation, the peaceful uses of nuclear technology and disarmament. Since its entry into force in 1970 only one of its non-nuclear signatories—North Korea—has developed a deliverable nuclear weapon. The next Review Conference of the NPT will be held in 2020, marking 50 years since the treaty entered into force, and will be an opportunity to take stock of progress towards its goals.

The NPT has had important successes that should be lauded, including limiting the number of nuclear possessor states and enabling the peaceful uses of nuclear technology. However, while reductions in nuclear stockpiles since the 1980s should be welcomed, it is clear that—largely as a result of the worsening security environment—global progress towards disarmament has stalled. The programmes of some nuclear possessor states go well beyond what can properly be described as modernisation, introducing new capabilities, particularly in the field of so-called tactical nuclear weapons, which could potentially increase nuclear risk. The lack of progress in the disarmament pillar of the NPT has led to considerable dissatisfaction, and contributed to the decision of some Non-Nuclear Weapon States to negotiate a treaty banning nuclear weapons.

In advance of the 2020 NPT Review Conference we urge the Government to seek to reduce tensions between Nuclear Weapon States and Non-Nuclear Weapon States. While we accept that UK will remain opposed to the Ban Treaty, its proponents have legitimate concerns about the pace of disarmament and nuclear risk, and the Government should adopt a less aggressive tone towards the treaty and its supporters. We also call on the Government to continue to support work towards the forthcoming UN conference on a Weapons of Mass Destruction-Free Zone in the Middle East, and encourage Israel to participate. We are concerned that global nuclear non-proliferation efforts have been undermined

by the US's decision to withdraw from the Iran nuclear deal. This is against the interests of the UK. We welcome the Government's robust defence of the deal, and its co-operation with European partners to find ways to preserve it. North Korea's nuclear programme is also a serious concern, and we welcome efforts to seek a diplomatic solution.

The entry into force of treaties concerning nuclear testing and fissile material would contribute to the nuclear non-proliferation and disarmament agenda. While the Comprehensive Nuclear-Test-Ban Treaty has still not yet entered into force, its negotiation has contributed to *de facto* moratoriums on testing. We strongly welcome the UK's support for the treaty and its ongoing efforts to secure further ratifications. The negotiation of a fissile material cut-off treaty would also contribute to global efforts to prevent nuclear proliferation, and we urge the Government to consider every option to make progress in this regard.

We are dangerously close to a world without arms control agreements, which would increase the risk of nuclear use. We accept that Russia is in violation of the Intermediate-Range Nuclear Forces Treaty, but urge the Government to use ongoing discussions in NATO to promote either a revival of the treaty or, at least, to avoid the deployment of intermediate-range missiles in Europe. We also call on the Government to make clear to the US Administration the value of the New Strategic Arms Reduction Treaty (New START) for Euro-Atlantic security, and advocate its extension.

The 2020 NPT Review Conference represents an opportunity for states to reaffirm their support for the non-proliferation agenda, and for the Nuclear Weapon States to show a demonstrable commitment to disarmament. In support of the treaty on its 50th anniversary, we recommend that the Secretary of State for Foreign and Commonwealth Affairs should represent the UK at this conference. The UK's upcoming chairmanship of the P5 group provides an opportunity for the Government to encourage its fellow Nuclear Weapon States to engage constructively with Non-Nuclear Weapon States to strengthen the NPT regime. It is also an opportunity to increase transparency and dialogue both between the P5, and with nuclear possessor states outside the NPT, to reduce the risk of nuclear use through misunderstanding and miscalculation.

The NPT has made, and continues to make, an essential contribution to international peace and security. The UK can help to strengthen a rules-based international order by demonstrating vision and leadership in addressing the challenges we have identified.

Rising nuclear risk, disarmament and the Nuclear Non-Proliferation Treaty

CHAPTER 1: INTRODUCTION

1. We are living through a time of worldwide disruption and change, and the global balance of power is shifting and fragmenting. The challenges to the rules based international order that we identified in our report *UK foreign policy in a shifting world order*¹ are equally visible in global nuclear diplomacy. Arms control agreements are collapsing, the nuclear non-proliferation regime is under pressure, and the risk of the use of nuclear weapons is a factor in international relations in a way not seen since the end of the Cold War.
2. The 191 countries that have ratified the Treaty on the Non-Proliferation of Nuclear Weapons (commonly known as the Nuclear Non-Proliferation Treaty, hereafter the NPT) agreed in its preamble that a nuclear war would visit “devastation ... upon all mankind”. The preamble set out the “need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples”.²
3. The NPT entered into force in 1970, with the objective of preventing the spread of nuclear weapons and associated weapons technology, promoting co-operation in the peaceful uses of nuclear energy, and furthering the goal of achieving nuclear disarmament.³ In the 49 years since, international security conditions have changed dramatically, from the nuclear brinkmanship of the Cold War, through the more benign conditions of the 1990s to the late 2000s. These benign conditions no longer exist.
4. Many of our witnesses said that greater global tensions—recently between the US and Russia and between India and Pakistan—and a more multipolar world with multiple centres of power, including China, are increasing the risk of nuclear weapons being used. Dr Nick Ritchie, Lecturer (International Security), University of York, said that an increase in nuclear risk was “undoubtedly a symptom of changes in hostile relations between nuclear armed adversaries”.⁴ Witnesses said that new technological capabilities and “a potential new arms race”⁵ heightened these tensions and the risk of misperception.

1 International Relations Committee, *UK foreign policy in a shifting world order* (5th Report, Session 2017–19, HL Paper 250) This is an area of international affairs which is not likely to be affected by Brexit, as international security is not an EU competence. Written evidence from Dr Ben Kienzle ([NPT0032](#)) Mr Koenders said that, “Brexit or not” the UK was “a key element in co-operation in Europe on security”. [Q 151](#) The Minister was confident that after Brexit, on “the big issues of international security, we will be able to maintain the kind of responsible co-operation that we want to maintain and which the world needs to see”. [Q 158](#)

2 UN Office for Disarmament Affairs, ‘*Treaty on the Non-Proliferation of Nuclear Weapons (NPT) Text of the Treaty*’: <https://www.un.org/disarmament/wmd/nuclear/npt/text> [accessed 14 March 2019]

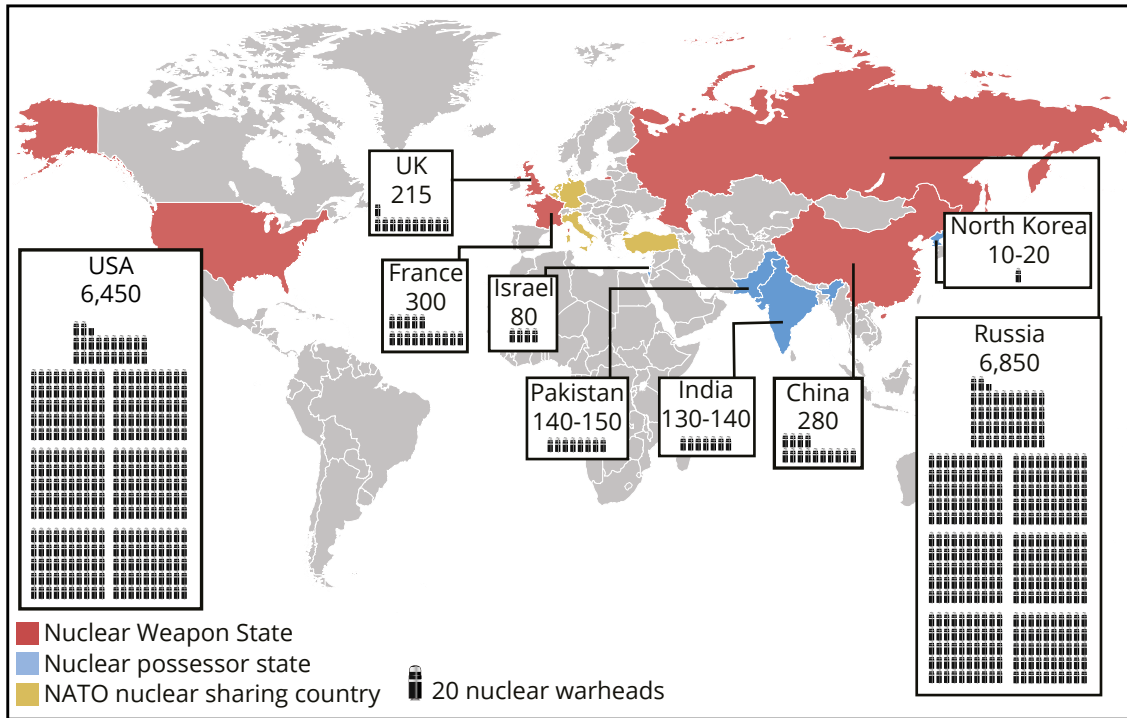
3 UN Office for Disarmament Affairs, ‘*Treaty on the Non-Proliferation of Nuclear Weapons (NPT)*’: <https://www.un.org/disarmament/wmd/nuclear/npt/> [accessed 14 March 2019]

4 [Q 102](#)

5 [Q 6](#) (Izumi Nakamitsu)

5. Lord Browne of Ladyton, former Secretary of State for Defence, and Vice-Chair, Nuclear Threat Initiative, said that “adversarial geopolitics” was a “pathway to a nuclear mistake”. He underscored the importance of nuclear diplomacy for the UK: “we live in a part of the world⁶ where 95% of the weapons in the world are present and a significant number of them deployed”.⁷

Figure 1: Global nuclear weapons inventories, 2018



Source: Stockholm International Peace Research Institute (SIPRI), ‘World Nuclear Forces’: <https://www.sipri.org/yearbook/2018/06> [accessed 26 March 2019]⁸

6. We heard of challenges to arms control. Dr William Perry, former US Secretary of Defense, said these agreements had decreased “the likelihood of a nuclear war” during the Cold War.⁹ A number of key bilateral agreements—such as the Intermediate-Range Nuclear Forces (INF) Treaty and the New Strategic Arms Reduction Treaty (New START) between the US and Russia, which together hold some 90% of the world’s nuclear arsenals—were under threat. Izumi Nakamitsu, Under-Secretary-General and High Representative for Disarmament Affairs, United Nations (UN), told us this was “definitely affecting the work at the multilateral level.”¹⁰ Sir Simon Gass KCMG CVO, former Political Director and former UK Ambassador to Iran, Foreign and Commonwealth Office (FCO), said “the atmosphere around non-proliferation today is more dangerous than it has been for some considerable period”.¹¹ There were “new threats and challenges to the non-

6 The Euro-Atlantic area.

7 [Q 49](#)

8 ‘Nuclear Weapon State’ is the term used to refer to nuclear-armed states recognised by the Nuclear Non-Proliferation Treaty (NPT), ‘nuclear possessor state’ in this diagram refers to nuclear-armed states that are not party to the NPT, and ‘NATO nuclear sharing country’ refers to those countries (Belgium, Germany, Italy, Netherlands and Turkey) that host US nuclear weapons on their territory.

9 Written evidence from Dr William Perry ([NPT0033](#))

10 [Q 1](#)

11 [Q 65](#)

proliferation regime”, including the unresolved North Korean programme, and questions over the health of the Iran nuclear deal following the US’s unilateral withdrawal.¹²

7. Witnesses also identified increasing tension between the five recognised Nuclear Weapon States and the Non-Nuclear Weapon States—particularly concerning the slow pace of disarmament under the NPT, resulting in the negotiation of the Treaty on the Prohibition of Nuclear Weapons (the Ban Treaty)—as well as ongoing challenges posed by nuclear possessor states outside the NPT.¹³ Beatrice Fihn, Executive Director, International Campaign to Abolish Nuclear Weapons (ICAN), described an “unravelling of the legal structure around nuclear weapons”.¹⁴
8. The state of the global non-proliferation regime is a microcosm of the broader rules-based international order, which we identified in our 2018 report to be “under serious threat from multiple directions”.¹⁵ Ms Nakamitsu told us that “disarmament, arms control and non-proliferation” were “a critical part of the international peace and security discourse”.¹⁶ Dr Brad Roberts, former US Deputy Assistant Secretary of Defense for Nuclear and Missile Defense Policy, said there was “no better example of the erosion of the rules-based international order” than what was “happening in the realm of disarmament diplomacy”. He said that “The rules and institutions of non-proliferation and disarmament remain, but their legitimacy is [subject to] growing debate. The commitment of leading powers to preserve and extend the regimes is in growing doubt. The effectiveness of the regime is in growing doubt.”¹⁷
9. From April–May 2020, States Parties to the NPT will hold a review of progress in achieving the treaty’s goals. This Review Conference (RevCon) has a difficult backdrop. It will be an opportunity to recognise the treaty’s successes—a near-universal membership, and its role in preventing the widespread proliferation of nuclear weapons—and to consider its challenges. It will also be an opportunity for all States Parties to consider actions to maintain and uphold the NPT as a central plank of nuclear arms control.
10. As one of the five NPT-recognised Nuclear Weapon States, the UK has a significant role to play in international nuclear diplomacy. In this report we consider the actions the UK should take to reduce nuclear risk, prevent the spread of nuclear weapons both within and between countries, support nuclear arms control agreements, and to advance multilateral nuclear disarmament.

This report

11. In Chapter 2 we consider the causes of nuclear risk. In Chapter 3 we consider the NPT and the wider non-proliferation regime, and assess progress against the three pillars of the NPT: non-proliferation, peaceful uses and disarmament. We also consider challenges to progress on the disarmament pillar.

12 [Q 66](#) (Andrea Berger)

13 India, Pakistan, Israel and North Korea.

14 [Q 102](#)

15 International Relations Committee, *UK foreign policy in a shifting world order* (5th Report, Session 2017–19, HL Paper 250)

16 [Q 1](#)

17 Written evidence from Dr Brad Roberts ([NPT0020](#))

12. In Chapter 4 we consider particular challenges to non-proliferation and arms control, including Iran, North Korea, the non-entry into force of the Comprehensive-Test-Ban Treaty, the paralysis of the Conference on Disarmament, the fraying of arms control agreements between the US and Russia, and the challenge of trying to develop arms control in the context of a multipolar and technologically advanced world. In Chapter 5 we consider prospects for the 2020 Review Conference of the NPT, and consider the actions that the UK, as a member of the P5 and a “responsible Nuclear Weapon State”,¹⁸ should take.
13. We took evidence on this inquiry from December 2018 to March 2019. Five committee members visited the UK Atomic Weapons Establishment (AWE) at Aldermaston as part of the inquiry. We thank our Specialist Adviser, Dr Heather Williams, Lecturer, King’s College London, and all our witnesses.

18 [Q 155](#) (Sir Alan Duncan MP)

CHAPTER 2: THE CAUSES OF NUCLEAR RISK

14. Witnesses discussed the current level of nuclear risk. Dr Perry said that when he left office in 1997 he “believed we were well on our way to lowering the nuclear dangers that we faced during the Cold War.” But he thought that the situation was now “as dangerous as” that period.¹⁹ Jessica Cox, Director of Nuclear Policy, North Atlantic Treaty Organisation (NATO), said that, while she did not want to give “the impression that ... nuclear use is imminent”, the Euro-Atlantic theatre was “closer to military conflict than at any time since the end of the Cold War.”²⁰
15. Andrey Baklitskiy, Consultant, PIR Center, thought “the current level of risk of nuclear use” was “still quite low” but the “growing” trend of an increasing emphasis of nuclear weapons [in states’ military doctrines] was “disturbing”. He noted that the “ongoing conflict between India and Pakistan” demonstrated that “possession of nuclear weapons does not preclude military conflicts”, and these conflicts come with “the possibility of escalation to the nuclear level.” A serious military confrontation between North Korea and the US, China and the US, India and China, or NATO and Russia, would “inevitably have a nuclear dimension”.²¹
16. Lord Browne acknowledged that “dramatic language” was used about nuclear risk, but his “assessment of the current level of risk posed by nuclear weapons” was nonetheless that it was “worse than it was.” He said “we have created an environment where miscalculation, an accident, a mistake, or catastrophic terrorism are most likely to be the catalysts for nuclear use”.²²
17. Sir Alan Duncan KCMG MP, Minister for Europe and the Americas, FCO, however, thought it was not “as straightforward or simple” as saying whether nuclear risk had increased. There was “always concern where there are heightened tensions between two nuclear powers ... there are always risks, which must be managed on a daily basis and with a proper understanding of any potential geopolitical developments and undercurrents”.²³
18. Sir Simon Gass said that while tensions were high, there had “been other times in our history when the causes for concern have been greater.”²⁴ Sarah Price, Head of Counter Proliferation and Arms Control Centre, FCO, said that the global security environment was “not as good as it was 20 or even 10 years ago”,²⁵ but many of the major nuclear “threats” facing the international community were not recent phenomena. For example, negotiations with Iran regarding its nuclear programme began in 2003, and North Korea conducted its first nuclear test in 2006.²⁶
19. Dr Ritchie concluded that nuclear risk was “very difficult to estimate”, as any assessment would be “inherently subjective”. However, a degree of risk was “permanent”, given that “the risk of nuclear use” was “inherent to the practice and logic of nuclear deterrence”, in that the “efficacy and credibility of a nuclear deterrent threat requires there to be some possibility

19 Written evidence from Dr William Perry ([NPT0033](#))

20 [Q 94](#) (Jessica Cox)

21 Written evidence from Andrey Baklitskiy ([NPT0046](#))

22 [Q 49](#) (Lord Browne of Ladyton)

23 [Q 152](#)

24 [Q 65](#) (Sir Simon Gass)

25 [Q 13](#)

26 [Q 152](#) (Sarah Price)

of those nuclear weapons actually being used”²⁷ Dr Tong Zhao, Fellow, Carnegie-Tsinghua Center for Global Policy, said “the continuous existence of nuclear weapons” created “as many security problems as it seems to solve ... it very much complicates—and in many cases worsens—the international security environment.”²⁸

20. Ms Fihn said that, although nuclear weapons had not been used “in warfare” since 1945, this did not mean that “no one has been killed by nuclear weapons in 74 years”. More than 2,000 nuclear tests had been carried out, “with devastating consequences for local communities.”²⁹ Scientists for Global Responsibility said that there was “a marked complacency among the Nuclear Weapon States ... about the existential threat that these weapons have to human civilisation and natural ecosystems.”³⁰
21. **The level of nuclear risk has increased, in particular since the decline in relations between Russia and the West from 2014. There is a danger that misunderstanding, miscalculation or mistakes could lead to the use of nuclear weapons. Steps to manage and reduce this risk should be of the highest priority for the Government.**
22. **While preventing the proliferation of nuclear capabilities to Non-Nuclear Weapon States must remain a priority, the principal cause of increased risk is the continued and at times expanding reliance of nuclear possessor states on their nuclear weapons.**
23. Witnesses identified four main factors in the intensification of nuclear risk: increasing multipolarity and inter-state competition; the threat of non-state actors; technological development, including the development of new nuclear and non-nuclear capabilities; and digital communication and irresponsible rhetoric. These are explored below.

Multipolarity and inter-state competition

24. Dr Ritchie said that “the risk of nuclear use” was “symptomatic of ... underlying hostilities”. He said that “levels of hostility, particularly between the US and NATO on the one side and the Russian Federation on the other” have been seen to “ratchet up” since the “mid-2000s or so”.³¹ Ms Cox attributed the cause of this heightened risk to “Russia’s continuing belligerent behaviour”, and cautioned that “with increased tensions between the US and Russia” there was “a real threat of great power conflicts with a nuclear dimension.”³² François Heisbourg, Special Adviser, Fondation pour la recherche stratégique, and Senior Adviser for Europe, International Institute for Strategic Studies, thought that the “post-Cold War era” had come to an end following the Ukraine crisis of 2014 and a new era had begun, one “in which nuclear weapons [were] a substantial part of the security equation in Europe.”³³
25. Rear Admiral John Gower CB OBE, former Assistant Chief of Defence Staff (Nuclear, Chemical, Biological), Ministry of Defence, said “one of the

27 [Q 102](#) (Dr Ritchie)

28 Written evidence from Dr Tong Zhao ([NPT0038](#))

29 [Q 104](#)

30 Written evidence from Scientists for Global Responsibility ([NPT0017](#))

31 [Q 102](#)

32 [Q 94](#)

33 [Q 87](#)

largest changes” in international relations was the “position of the Russian Federation”. It had “suffered a massive dip in status and position” but was “now ... attempting to reassert itself.”³⁴

26. The Minister, however, said that this behaviour did not necessarily contribute to the risk of nuclear use: while Russia had been willing to act in a way that threatened its neighbours and while the Government deplored Russia’s actions towards Ukraine, “whether this increases the prospect of nuclear use” was “utterly debatable”.³⁵
27. Beyond the US–Russia relationship, Dr Ritchie cited tensions in the US–North Korea, US–China and India–Pakistan relationships as contributing to the risk of nuclear use.³⁶ Dr Zhao too thought the “growing nuclear competition among some Nuclear Weapon States, especially the United States, Russia, and China”, was “making that risk greater”.³⁷
28. Witnesses drew attention to South Asia, which Alexander Kmentt, former Director, Department for Disarmament, Arms Control and Non-Proliferation, Austrian Federal Ministry for Europe, Integration and Foreign Affairs, described as a “potential nuclear hotspot”.³⁸ Tensions between India and Pakistan increased during our inquiry, with both sides launching airstrikes against each other. Dr Rishi Paul, South Asia Analyst, British American Security Information Council (BASIC), said “we are currently trapped in a situation that is slowly but inexorably sliding towards increased risk of nuclear exchange”.³⁹ The Minister said that there was “a potential nuclear threat” from these tensions.⁴⁰
29. Rear Admiral Gower told us that a return to a bipolar balance of power, such as that of the Cold War, was unlikely: it was necessary to “seek a stability” that was “multipolar”. This would be hard. Even reaching international agreement on what constituted “strategic stability” was “most difficult”.⁴¹ Dr Oliver Meier, Deputy Head, International Security Division, German Institute for International and Security Affairs, said that while there was “70 years of experience in managing the bilateral nuclear relationship between Russia and the United States”, there was “little experience” of managing nuclear relationships in the context of increasing multipolarity.⁴²
30. **The world is increasingly multipolar, which means approaches to managing nuclear risk cannot focus only on the US, NATO and Russia. Efforts must also include states such as China, as well as nuclear possessor states outside the Non-Proliferation Treaty.**

34 [Q 77](#). In our report, *UK foreign policy in a shifting world order*, we concluded that Russia’s behaviour stemmed from Russia being “a declining power”; it was “increasingly willing and able to use both traditional and new capabilities ... to act as a disrupter in international relations”. International Relations Committee, *UK foreign policy in a shifting world order* (5th Report, Session 2017–19, HL Paper 250)

35 [Q 152](#)

36 [Q 102](#)

37 Written evidence from Dr Tong Zhao ([NPT0038](#))

38 [Q 87](#)

39 Written evidence from Dr Rishi Paul ([NPT0024](#))

40 [Q 152](#)

41 [Q 78](#) (Rear Admiral John Gower)

42 Written evidence from Dr Oliver Meier ([NPT0045](#))

Dialogue and communication

31. Bert Koenders, former Minister of Foreign Affairs, Kingdom of the Netherlands, said that “at a time of neo-nationalism, big man politics and technology ... communication channels and understanding the need to talk are crucial.”⁴³ Ms Nakamitsu said the UN was “repeatedly sending ... [the message] that differences should be resolved by dialogue and negotiation.”⁴⁴
32. Professor Gareth Evans, Chancellor, Australian National University, and former Australian Minister for Foreign Affairs, believed that the US and Russia were “equally ... unreceptive” to dialogue under their respective leaderships.⁴⁵ Rear Admiral Gower said that during the Cold War “although we had huge ideological differences with the Soviet Union, many of those were set aside for discussions between the two superpowers on nuclear arms reduction.” The difference today was that all issues in Russia–West relations—including human rights, election interference and sanctions—were seen as linked, which meant progress on nuclear issues was “much less likely”.⁴⁶
33. Following the invasion of Crimea, NATO’s policy had been not to return to ‘business as usual’ with Russia until it “demonstrates compliance with international law”.⁴⁷ Mr Koenders said it was not possible to have a strategy of deterrence without dialogue. It was in NATO’s “self-interest to keep talking” with Russia about “the risk of miscalculation”.⁴⁸ Lord Browne said there was an “urgent and immediate requirement to restore dialogue and rebuild US–Russian relations”. He believed “dialogue should not be treated as a bargaining chip” by NATO: the “US, NATO and Russia should revive and strengthen all channels of communication between political, military and intelligence leaders ... to avoid the risk of conflict and miscalculation.”⁴⁹ Mr Koenders thought the Alliance had “failed” on this to date.⁵⁰ Rear Admiral Gower said both sides should make clear there are some issues that are so “important” they “should have dialogue” on them regardless of their “other differences”.⁵¹
34. This is consistent with the conclusion in our 2018 report, *UK foreign policy in a shifting world order*, that the UK must remain open to dialogue with Russia on issues of common concern”.⁵²

43 [Q 145](#)

44 [Q 2](#)

45 Written evidence from Professor Gareth Evans ([NPT0036](#))

46 [Q 77](#)

47 North Atlantic Treaty Organization, *Nato–Russia Relations: Background*, April 2018: https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2018_04/20180426_1805-NATO-Russia_en.pdf [accessed 14 March 2019]

48 [Q 146](#). In the House of Lords on 2 April 2019 Lord Robertson of Port Ellen, former Secretary General, NATO, said “Resuming the formality and depth of the NATO–Russia Council would not in any way be seen as a concession to wholly unacceptable Russian behaviour in Ukraine, Crimea and Salisbury; instead, it would be a recognition that, in a hair-trigger nuclear world, we need to talk about what we agree on as well as why we disagree on other matters.” HL Deb, 2 April 2019, [col 126](#)

49 Written evidence from Lord Browne of Ladyton ([NPT0044](#))

50 [Q 146](#)

51 [Q 77](#) (Rear Admiral John Gower)

52 International Relations Committee, *UK foreign policy in a shifting world order* (5th Report, Session 2017–19, HL Paper 250)

35. **Notwithstanding current tensions, the Government should be prepared to talk to Russia about nuclear strategic stability. The risks of miscommunication, misperception and miscalculation are too grave to allow other aspects of Russia's behaviour to preclude talks on nuclear issues.**
36. **It is also important that NATO has a dialogue with Russia on nuclear issues as part of an effort to take all steps to reduce the risk of nuclear use. One way of doing this would be to reinvigorate dialogue within the NATO-Russia Council.**
37. **We do not regard such contacts, which took place even at the height of the Cold War, as constituting 'business as usual'.**

Non-state actors

38. Witnesses raised the risk of nuclear use by non-state actors. The Executive Committee of British Pugwash said that non-state actors "would not be deterred from using nuclear weapons by the taboo or cost/benefit calculations that deter the nine possessor-states". This made the risk that nuclear weapons would be used, if they got hold of them, higher than for a state.⁵³ Dr Christopher Hobbs, Reader in Science and Security, King's College London, said it was not just terrorist groups that presented a threat: "Organised crime and individuals can and have been motivated by financial gain, disgruntlement and other reasons to steal and illicitly traffic nuclear materials and sabotage facilities."⁵⁴
39. Rear Admiral Gower said the "risk of non-state actors gaining access to a nuclear weapon" would be likely to come "through a current" nuclear possessor state. There were two possibilities: a nuclear-weapon state might choose to give a weapon to a non-state actor, or a non-state actor might take advantage of weaknesses in a state's nuclear security.⁵⁵ Dr Nick Ritchie thought that "a government deciding to clandestinely arm a non-state actor to act as their surrogate" was "highly unlikely".⁵⁶
40. Dr Ritchie said the "acquisition of weapons-usable or weapons-grade fissile material" by a non-state actor was "possible", but it was "more implausible that a terrorist group would be able to develop a workable primitive basic nuclear device and be able to detonate it".⁵⁷ Rear Admiral Gower said the risk of a non-state actor "producing a nuclear weapon" was "very low". This was partly as a result of the impact of measures such as the Nuclear Non-Proliferation Treaty and the Nuclear Suppliers Group (discussed in Chapter 3).⁵⁸
41. Mr Koenders thought "some progress" had been made to mitigate the risk of the use of nuclear material by non-state actors.⁵⁹ Recent efforts have included

53 Written evidence from the Executive Committee of British Pugwash ([NPT0003](#))

54 Written evidence from Dr Christopher Hobbs ([NPT0032](#))

55 [Q 82](#)

56 [Q 104](#)

57 *Ibid.*

58 [Q 82](#)

59 [Q 145](#)

the Nuclear Security Summit process led by the United States during the Obama Administration.⁶⁰

42. **We welcome international efforts to increase the security of nuclear and radioactive materials and thus reduce the risk posed by non-state actors. The security of nuclear stockpiles and measures to prevent proliferation must remain a priority for the Government.**

Technological development

43. Witnesses described several technological developments affecting nuclear stability. Some of these risks, such as the development of so-called tactical nuclear weapons and dual-capable systems, were related to the increasing reliance on certain existing technological capabilities. Others could be considered emerging technologies, the impact of which was not yet certain. Another factor was nuclear modernisation programmes and their effect on nuclear risk.

'Tactical' nuclear weapons

44. Several witnesses discussed the development, both in terms of doctrine and capabilities, of lower yield 'tactical' nuclear weapons. Tactical nuclear weapons differ from strategic nuclear weapons in that they are envisaged to be used in fighting and winning a war, as opposed to strategic nuclear weapons, which are used to deter conflict.⁶¹ Ms Nakamitsu noted that while these bombs are lower yield, they are "still much bigger than" the bombs used in Hiroshima and Nagasaki.⁶²
45. Some witnesses noted this was not an entirely new development. Dr Ritchie said that "planning to fight and win nuclear wars was always a part of the doctrine".⁶³ He questioned whether it was possible to have a 'tactical' nuclear weapon: "today every nuclear weapon is a strategic weapon, even if it were a nuclear hand grenade, because it breaks the nuclear taboo."⁶⁴
46. Dr Jenny Clegg, former Senior Lecturer, University of Central Lancashire, said the 2018 US Nuclear Posture Review (NPR) had suggested "including low-yield tactical nuclear weapons" to the US arsenal.⁶⁵ The NPR justified this in part due to what the US believed to be Russia's nuclear doctrine, stating:

"Russia considers the United States and the North Atlantic Treaty Organization (NATO) to be the principal threats to its contemporary geopolitical ambitions. Russian strategy and doctrine emphasize the potential coercive and military uses of nuclear weapons. It mistakenly assesses that the threat of nuclear escalation or actual first use of nuclear weapons would serve to "de-escalate" a conflict on terms [favourable] to Russia. These mistaken perceptions increase the prospect for dangerous miscalculation and escalation."

60 Arms Control Association, 'Nuclear Security Summit at a Glance': <https://www.armscontrol.org/factsheets/NuclearSecuritySummit> [accessed 14 March 2019]

61 [Q 84](#) Rear Admiral John Gower noted that the UK "got rid" of its last "so-called tactical weapon" in 1994.

62 [Q 6](#)

63 [Q 104](#)

64 [Q 84](#) A similar point was made by Mr Franklin [Q 165](#)

65 Written evidence from Dr Jenny Clegg ([NPT0021](#))

It went on to say Russia's doctrine was based on the "mistaken assumption of Western capitulation" in the event of a Russian first use of nuclear weapons.⁶⁶

47. In response to this assessment of Russia's doctrine, and its development of low-yield nuclear capabilities for warfighting, the US would expand its "flexible" nuclear options. The NPR argued this would preserve "credible deterrence" and "raise the nuclear threshold".⁶⁷
48. Dr Zhao told us that "Russia and China tend to reject the [US] argument that [its] efforts to re-emphasize the role of low-yield tactical nuclear weapons are aiming at deterring limited nuclear use by other countries."⁶⁸

Dual-capable systems and entanglement

49. 'Dual-capable' weapons systems, which can deliver both conventional and nuclear payloads, are being developed by some states. Mr Koenders said one of his "biggest worries" was this "blurring between nuclear and non-nuclear weapons".⁶⁹ The FCO cited these systems amongst the technologies with potential to undermine the security environment.⁷⁰ Ms Cox said, from NATO's perspective, "dual-capability systems" were "clearly a threat".⁷¹
50. Ms Cox said dual-capable systems reduced the "ability to determine what is coming at us", and made it "more difficult for us to determine an appropriate and proportionate response."⁷² The issue was the 'entanglement' between nuclear and non-nuclear systems, where previously there was a clear distinction. Dr Ritchie said that this could "increase the misunderstanding, misjudgement or misperception of an adversary's actions in a particular context". He said that "command and control systems for conventional weapons" could "provide exactly the same infrastructure that is necessary for the command and control of nuclear forces", with the result that "you may think that you are attacking conventional weapons but in fact you are attacking the adversary's nuclear weapons". In a crisis, this "could lead to different types of escalation which could lead to the first use of nuclear weapons and then retaliatory nuclear strikes."⁷³

Emerging technologies

51. In our report, *UK foreign policy in a shifting world order*, we discussed the transformative impact of new technology on international relations.⁷⁴ In its response to our report, the Government told us that "Emerging technologies

66 United States Department of Defense, *Nuclear Posture Review 2018* (February 2018): <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF> [accessed 14 March 2019]

67 *Ibid.*

68 Written evidence from Dr Tong Zhao (NPT0039)

69 Q 145

70 Written evidence from the Foreign and Commonwealth Office (NPT0035)

71 Q 97

72 *Ibid.*

73 Q 103

74 International Relations Committee, *UK foreign policy in a shifting world order* (5th Report, Session 2017–19, HL Paper 250)

could be considered a ‘disruptor’ to traditional power structures and traditional foreign policy actors.”⁷⁵

52. Ms Cox said that “the advancement of new technologies ... poses inherent risks to nuclear deterrence and the way we conduct our nuclear business.”⁷⁶ The FCO said “the development of new and novel offensive and defensive weapons technologies, both nuclear and non-nuclear” had “the potential to diminish the security environment”.⁷⁷
53. Rear Admiral Gower said that from the “beginning of the atomic age” until “20 or 30 years ago”, states did not have any conventional capabilities “that could deliver the effect at range with the accuracy and the impact of a nuclear weapon.” That was “no longer the case”, and while the impact was “still different from a nuclear weapon” it was now possible to have a “strategic effect” with sophisticated conventional capabilities.⁷⁸ There were potential positives to this, “because it means that in conflict [a nuclear possessor state] might not resort to nuclear weapons as early as they would have done before.” On the other hand, he was concerned about the “entanglement between conventional ... and nuclear” command and control.⁷⁹ Ms Cox said entanglement was a threat in the context of emerging technologies. She was concerned that “with the increasing capabilities of cyber, space domains and lethal autonomous weapons”, we would “start to see entanglement ... between these systems”.⁸⁰
54. Witnesses considered the effect of new non-nuclear capabilities on nuclear deterrence. Franklin Miller KBE, former Senior Director for Defense Policy and Arms Control, White House National Security Council, said “emerging trends in cyber weapons, space weapons and advanced conventional weapons have the potential to destabilize relations among the Great Powers”.⁸¹ Dr Zhao told us that new “non-nuclear technologies greatly undermine the stability of mutual deterrence relationships between nuclear armed states”. He included in his list of such technologies missile defence (discussed in Chapter 4), conventional precision strike weapons (discussed later in this chapter), advanced space-based sensors and surveillance technologies, cyber capabilities, artificial intelligence and unmanned systems.⁸²
55. The FCO said some emerging weapons technologies, including dual-capable systems and advanced conventional capabilities, “may create over-confidence in the mind of a strategic competitor that it can use novel non-nuclear weapons to attack a Nuclear Weapon State without passing the threshold for a nuclear response”. It was concerned that “these technologies could raise the potential for miscalculation by a threatened state, given the uncertainty over the likely impact of such an attack.”⁸³

75 Foreign and Commonwealth Office, *Government response to UK foreign policy in a shifting world order*: <https://www.parliament.uk/documents/lords-committees/International-Relations-Committee/foreign-policy-in-a-changing-world/Government-Response-UK-Foreign-Policy-in-a-Shifting-World-Order.pdf> [accessed 3 April 2019]

76 Written evidence from Jessica Cox (NPT0039)

77 Written evidence from the Foreign and Commonwealth Office (NPT0035)

78 Q 82. Rear Admiral John Gower referred specifically to “precision-guided long-range conventional weapons” and the “targeting of cyber”, both of which are discussed in more detail later in the report.

79 Q 82

80 Q 98

81 Written evidence from Franklin Miller KBE (NPT0042)

82 Written evidence from Dr Tong Zhao (NPT0038)

83 Written evidence from the Foreign and Commonwealth Office (NPT0035)

56. Ms Nakamitsu told us that technological development might affect “how decisions are made on the potential use of nuclear weapons.” The speed at which decisions were taken in the context of new technologies “could potentially contribute towards states having a ‘use it or lose it’ mentality”.⁸⁴ Tom Plant, Director, Proliferation and Nuclear Policy, Royal United Services Institute (RUSI), said that, taken together, “all the advances in cyberspace, AI and ... to some extent, micro-drone technology” act together to “reduce decision-making time in a crisis”.⁸⁵

Threats to nuclear command and control

57. Lord Browne said “the emergence of cyber and other technology” was “a threat to strategic warning systems and to nuclear command and control.”⁸⁶ BASIC said “technological advancements” posed “the risk of inadvertent nuclear escalation as they could increase the effectiveness of non-nuclear attacks against key nuclear command, control and communications centres.”⁸⁷
58. Rear Admiral Gower, however, thought that “at the moment the risk of a cyberattack on nuclear capabilities” was “extremely low, largely because most of those nuclear capabilities were conceived and built before cyber, and certainly in the United Kingdom there is no connection between the internet and our nuclear command and control.”⁸⁸ Lord Browne said that it was unwise to think that because the UK’s nuclear weapons system is submarine-based it is “air gapped” (the term for operating systems that are not connected to the public internet). He noted that there had been examples of ‘jumping the air-gap’, for example in Iran.⁸⁹

Nuclear modernisation and risk

59. All Nuclear Weapon States renew and modernise aspects of their nuclear weapons, some on a continuing basis, others, such as the UK, on a cyclical basis. Some witnesses believed nuclear modernisation programmes decreased risk. Mr Plant gave an example: “If I had a rifle here and I put a safety catch on it, I have modernised that weapon in a way—I have improved its capability—but I have also made it safer.”⁹⁰ Dr Sarah Tzinieris, Research Fellow, King’s College London, said “risk-reduction and improvements in the safety of nuclear weapons, making them less prone to accident or malfunction” were “important benefits”.⁹¹
60. On the other hand, Dr Tzinieris considered how modernisation programmes could increase risk. China, the US and Russia’s “relentless modernisation ... of nuclear capabilities and their delivery systems” was “exacerbating tensions

84 [Q 11](#)

85 [Q 40](#)

86 [Q 49](#). A nuclear command and control system is that used to manage and use nuclear weapons.

87 Written evidence from BASIC ([NPT0020](#))

88 [Q 82](#)

89 [Q 51](#); see also written evidence from the Campaign for Nuclear Disarmament ([NPT0022](#)). In 2010 it was revealed that computers at the Natanz uranium enrichment plant in Iran were infected with a virus known as Stuxnet, and that the virus had undermined the plant’s effectiveness. These computers were ‘air gapped’, meaning that they were not connected to the internet. It is thought that the virus was deployed using an infected USB drive. Kim Zetter ‘An unprecedented look at Stuxnet, the world’s first digital weapon’, Wired: <https://www.wired.com/2014/11/countdown-to-zero-day-stuxnet/> [accessed 27 March 2019]

90 [Q 40](#)

91 Written evidence from Dr Sarah Tzinieris ([NPT0032](#))

on the international stage”.⁹² Dr Tong Zhao said modernisation could cause “cascading reactions in adversarial countries”: “modernisation begets more modernisation.”⁹³ Ms Nakamitsu described this as the start of a “potential new arms race”.⁹⁴

61. Modernisation programmes, and the Non-Nuclear Weapon States’ response to them in the context of the wider non-proliferation and disarmament regime, are discussed in Chapter 3.

Managing technological change

62. Ms Cox believed the risks of technological development were “manageable”. It was necessary to “make smart decisions about business practices, and make substantial investments in protecting critical capabilities.”⁹⁵ Ms Price said the Government looked at the cyber risk to nuclear systems “very carefully” and took “every measure possible to ensure that our assets are protected.”⁹⁶ NATO was seeking “to prevent any vulnerability to our nuclear command and control as well as our nuclear weapons infrastructure.”⁹⁷
63. Regarding cyber threats to nuclear command and control, Lord Browne said the “first step towards solving any problem” was “admitting that there [was] one”. He could find “no instance of a Cabinet-level Minister ... ever mentioning cyber in the context of a report about [the UK’s] modernisation programme ... no debate about this issue ... [no] select committee that has looked at it.” In the United States, by contrast, there was “an openness about this challenge”.⁹⁸ He cited a US Department of Defense report that had said that “the United States cannot be confident that our critical Information Technology ... systems will work under attack from a sophisticated and well-resourced ... ‘full spectrum’ adversary”. The same report also noted that this was true for the US’s allies.⁹⁹
64. Rear Admiral Gower proposed that Nuclear Weapon States and Non-Nuclear Weapon States should pursue a “code of conduct” with “a formal agreement ... [to] refrain from any kind of targeting or degradation of the satellites and the command and control infrastructure, so there is not a risk of misinterpretation.”¹⁰⁰
65. **Nuclear possessor states are developing more sophisticated capabilities, utilising new technologies, and there is increasing ‘entanglement’ between conventional and nuclear weapons. These developments increase the possibility of miscalculation and the speed of decision-making, both of which could result in an escalation of hostilities.**

92 Written evidence from Dr Sarah Tzinieris (NPT0032)

93 Written evidence from Dr Tong Zhao (NPT0038)

94 Q 6

95 Written evidence from Jessica Cox (NPT0039)

96 Q 15

97 Written evidence from Jessica Cox (NPT0039)

98 Q 51 (Lord Browne of Ladyton)

99 Defense Science Board, United States Department of Defense, Resilient Military Systems and the Advance Cyber Threat (January 2013): <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB424/docs/Cyber-081.pdf> [accessed 14 March 2019]

100 Q 86

66. **The Government should review the resilience of the UK’s nuclear deterrent and associated systems in the context of emerging technologies, in particular cyber capabilities. It should report its key findings to Parliament.**

Digital communication, rhetoric and risk

67. A final factor in the growth of nuclear risk is the development of digital communication tools, social media and irresponsible rhetoric, issues we noted were having a significant impact on international relations in our report *UK foreign policy in a shifting world order*.¹⁰¹ Dr Meier said:

“The line between responsible and irresponsible Nuclear Weapon States has been shattered, if it ever existed. Leaderships in some Nuclear Weapon States, including in the United States and Russia, are ignorant of nuclear dangers and talk about these weapons irresponsibly, also with a view to increasing domestic support.”¹⁰²

In their assessment of “heightened risk” the Northern Friends Peace Board cited “aggressive rhetoric ... [and] nationalism pandered to by both democratic leaders and dictators to strengthen their popularity and support”.¹⁰³

68. The Northern Friends Peace Board cited “ill-considered communications by social media” as a risk factor.¹⁰⁴ A similar point was made by Rear Admiral Gower, who considered social media might cause misunderstanding of the “signals that the other country is sending”. He gave an example: “President Trump is tweeting, ‘I’m going to blow you up’, and someone sends a missile over because they think he actually means that at that time”.¹⁰⁵
69. The Minister said there was “no doubt that the language has become looser when talking about” nuclear issues. This could be equated “with greater risk and danger”, or it was possible to say it was a “change in the nature of political behaviour.”¹⁰⁶
70. **Reckless nuclear rhetoric in an era of digital communications potentially increases the risk of misperception and thus nuclear use.**

Nuclear doctrine and declaratory policy

71. We considered the nuclear doctrines of nuclear possessor states and how these doctrines related to nuclear risk.

101 International Relations Committee, *UK foreign policy in a shifting world order* (5th Report, Session 2017–19, HL Paper 250)

102 Written evidence from Dr Oliver Meier ([NPT0045](#))

103 Written evidence from the Northern Friends Peace Board ([NPT0019](#))

104 Written evidence from the Northern Friends Peace Board ([NPT0019](#))

105 [Q 83](#)

106 [Q 152](#)

Box 1: Nuclear possessor states' declaratory policies

Nuclear possessor states' declaratory policies

All nuclear-armed states except Israel have made declarations on the circumstances in which they would or would not use nuclear weapons. These can be positive—when a state would use nuclear weapons—or negative—when a state would not use nuclear weapons. They are considered by nuclear possessor states to deter attacks against them and to assure some other states of their safety.

First use

Most nuclear-armed states reserve the right to use nuclear weapons first in a conflict, while some declare that they will use nuclear weapons only in retaliation.

Sole use

A 'sole use' policy is one in which a country commits to use nuclear weapons only to deter or respond to a nuclear threat, thus, for example, ruling out using nuclear weapons in relation to the use of other weapons of mass destruction.¹⁰⁷

The UK

The UK detailed its nuclear doctrine in its 2015 National Security Strategy and Strategic Defence and Security Review. It set out that:

“Only the Prime Minister can authorise the launch of nuclear weapons, which ensures that political control is maintained at all times. We would use our nuclear weapons only in extreme circumstances of self-defence, including the defence of our NATO Allies. While our resolve and capability to do so if necessary is beyond doubt, we will remain deliberately ambiguous about precisely when, how and at what scale we would contemplate their use, in order not to simplify the calculations of any potential aggressor.”¹⁰⁸

China

China maintains a no first use policy. A 2016 defence white paper stated: “China will unconditionally not use or threaten to use nuclear weapons against Non-Nuclear Weapon States or in nuclear-weapon-free zones, and will never enter into a nuclear arms race with any other country.” China has called for an “international legal instrument”¹⁰⁹ to prohibit the first use of nuclear weapons.

107 Arms Control Association, ‘Nuclear Declaratory Policy and Negative Security Assurance’: <https://www.armscontrol.org/factsheets/declaratorypolicies> [accessed 14 March 2019]

108 Cabinet Office, *The National Security Strategy and Strategic Defence and Security Review 2015: A Secure and Prosperous Kingdom* Cm 9161, November 2015, p 35: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/478933/52309_Cm_9161_NSS_SD_Review_web_only.pdf [accessed 14 March 2019]

109 People’s Republic of China Mission to the United Nations, Statement by H.E. Ambassador Li Baodong Head of the Chinese Delegation at the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (4 May 2010): https://www.un.org/en/conf/npt/2010/statements/pdf/china_en.pdf [accessed 14 March 2019]

France

The 2017 Strategic Review of Defence and National Security maintained France's ambiguous position. It stated that France's nuclear deterrent: "protects [France] from any aggression against our vital interests emanating from a state, wherever it may come from and whatever form it may take ... The use of nuclear weapons would be conceivable only in extreme circumstances of legitimate self-defence".¹¹⁰

Russia

Russia's 2014 Military Doctrine stated that Russia reserved the option to use nuclear weapons in response to an attack using any type of weapon of mass destruction, and in response to a conventional attack that placed the "very existence of the state ... under threat."¹¹¹

The United States

The 2018 Nuclear Posture Review stated that the US did not maintain a no first use policy, which was justified by a need to remain flexible to deter both nuclear and non-nuclear attacks. The "extreme circumstances" in which the US would consider the use of nuclear weapons included "significant non-nuclear strategic attacks" against "US, allied or partner civilian population or infrastructure, and attacks on US or allied nuclear forces, their command and control, or warning and attack assessment capabilities."¹¹²

India

India has a declared policy of no first use.

Pakistan

Pakistan has issued negative security assurances to non-nuclear-armed states.

Israel

Israel has not acknowledged its nuclear possession, due to a policy of 'opacity' (discussed in Chapter 3). It has thus never made aspects of its nuclear doctrine public.¹¹³

North Korea

North Korea has publicly declared a policy of no first use "as long as the hostile forces for aggression do not encroach upon its sovereignty." Pyongyang has regularly threatened to use its nuclear weapons against neighbours and the United States.

Source: Arms Control Association, 'Nuclear Declaratory Policy and Negative Security Assurances': <https://www.armscontrol.org/factsheets/declaratorypolicies> [accessed 14 March 2019]

72. The Minister described the UK as a "responsible Nuclear Weapon State". The UK had taken "taken a number of unilateral actions that both build

110 La délégation à l'information et à la communication de la Défense (DlCoD), Strategic Review of Defence and National Security 2017: Key Points (October 2017): <https://otan.delegfrance.org/2017-Strategic-Review-of-Defence-and-National-Security> [accessed 14 March 2019]

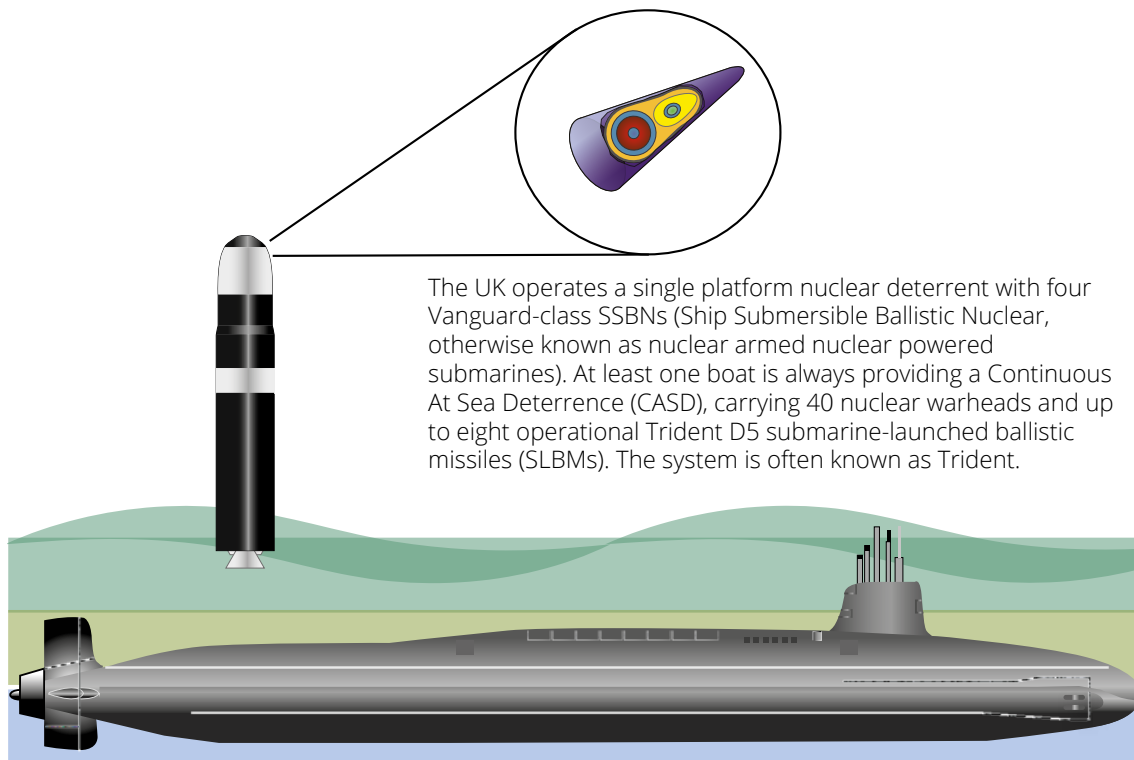
111 The Embassy of the Russian Federation to the United Kingdom of Great Britain and Northern Ireland 'The Military Doctrine of the Russian Federation': <https://www.rusemb.org.uk/press/2029> [accessed 14 March 2019]

112 United States Department of Defense, Nuclear Posture Review 2018 (February 2018): <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF> [accessed 14 March 2019]

113 Written evidence from Dr Avner Cohen (NPT0048)

confidence and reduce tensions,” including having not “targeted” nuclear missiles “at any state since 1994”, Trident-capable submarines being at “several days’ notice to fire” and “political control” being “maintained at all times”.¹¹⁴ The UK’s nuclear deterrent is outlined in Figure 2.

Figure 2: The UK’s nuclear deterrent



Source: HM Government, ‘National Security Strategy and Strategic Defence and Security Review 2015’: <https://www.gov.uk/government/publications/national-security-strategy-and-strategic-defence-and-security-review-2015> [accessed 26 March 2019]

Ambiguity

73. Witnesses considered the use of ambiguity in nuclear declaratory policy. Rear Admiral Gower said there was a “spectrum of ambiguity from, ‘We will attack anybody at any time if we believe we are threatened’ to, ‘no first use’.”¹¹⁵
74. The UK maintains a “deliberately ambiguous” nuclear declaratory policy.¹¹⁶ The Minister said “We have never said that there will be no first use, and nor should we”. He confirmed that the Government reserved the right to strike a country with nuclear weapons before it had attacked the UK. NATO too had a “deliberately ambiguous” policy.¹¹⁷
75. James Franklin, Deputy Director, Defence Nuclear Policy, Ministry of Defence, believed the UK’s ambiguous declaratory policy was necessary, as the Government did not want “to make the calculation a simple one for our adversaries”. By “being more ambiguous, others do not know, and cannot get to a point at which they can see, when nuclear weapons would be used”.

114 [Q 155](#)

115 [Q 85](#)

116 [Q 155](#) (James Franklin)

117 [Q 155](#)

Mr Franklin questioned how “rigid” other states’ no first use policies would be, and “in what circumstances” they would hold. Ambiguity reinforced deterrence and reduced “the risk of nuclear weapons being used.”¹¹⁸

76. Rear Admiral Gower took a different view. While ambiguity complicated “the mind of an adversary”, it added “to the chance of misinterpretation”. He judged that “by reducing the amount of ambiguity in certain areas” the UK could “show restraint”.¹¹⁹ BASIC made a similar point: “too much ambiguity is reckless and irresponsible. Specific nuclear assurances can have benefits increasing confidence between states as well as strengthening deterrence postures.”¹²⁰
77. As set out in the 2015 Strategic Defence and Security Review, the UK is willing to commit that it “will not use, or threaten to use, nuclear weapons against any Non-Nuclear Weapon State Party to the [NPT]” provided that state is not “in material breach of those non-proliferation obligations”. However, the Government reserves the right to “review this assurance” if a state were to develop threatening non-nuclear WMDs, “such as chemical and biological capabilities”.¹²¹ Therefore, the UK does not maintain a policy of sole use.
78. The ambiguity retained by the “US, and to a certain degree the UK,” with regard to “sorts of non-nuclear attacks against which ... we would respond with a nuclear weapon” was challenged by Rear Admiral Gower. He said it was “extremely unlikely” a state would respond to a non-nuclear attack with a nuclear weapon, and adversaries would be able “work that out”.¹²²

Misinterpretation of doctrine and miscalculation

79. BASIC warned of “the increased risk of inadvertent nuclear use through misperception and miscalculation of nuclear doctrine.”¹²³ A possible example of this was evident in disagreements between witnesses on the nature of Russia’s doctrine.
80. The US 2018 Nuclear Posture review said that Russia’s military doctrine implied that it would be willing to use nuclear weapons early in a conflict to win that conflict.¹²⁴ Some witnesses drew a similar conclusion. Mr Koenders said Russia’s “at least hints at the early use of nuclear weapons to stop a possible conflict at an early stage”, and added that if “that threshold has gone we have a major issue.”¹²⁵ Mr Miller said “Russia’s military and civilian leaders” appeared “to believe that they could use low-yield nuclear weapons in small numbers to cement victory in a landgrab against NATO”.¹²⁶

118 [Q 155](#)

119 [Q 84](#)

120 Written evidence from the British American Security Information Council (BASIC) ([NPT0020](#))

121 Cabinet Office, *The National Security Strategy and Strategic Defence and Security Review 2015: A Secure and Prosperous Kingdom*, Cm 9161, November 2015, p 35: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/478933/52309_Cm_9161_NSS_SD_Review_web_only.pdf [accessed 14 March 2019]

122 [Q 84](#)

123 Written evidence from the British American Security Information Council (BASIC) ([NPT0020](#))

124 United States Department of Defense, Nuclear Posture Review 2018 (February 2018): <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF> [accessed 14 March 2019]

125 [Q 145](#)

126 Written evidence from Franklin Miller KBE ([NPT0042](#))

81. This analysis of Russia’s nuclear doctrine was not shared by all witnesses. Dr Ritchie said it was “contested as to whether talk of using small, limited tactical nuclear warheads to de-escalate a conflict is an accurate representation of Russian doctrine”; he believed that “was not an accurate representation of the current Russian nuclear posture.”¹²⁷
82. Mr Baklitskiy said that, “contrary to what some Western experts claim”, Russia has not adapted its doctrine to lower the threshold for nuclear use. Russia’s 2014 Military Doctrine used the same wording as the 2010 doctrine to state that it would use nuclear weapons in “response to [the] use of nuclear or other weapons of mass destruction against Russia and its allies”, or “when the very existence of the state is in jeopardy”. This meant that Russia did “not have [an] ‘escalate to de-escalate’ strategy.” Nuclear weapons were being relied on by Russia less according to Mr Baklitskiy, because Russia was “getting more comfortable with its conventional capabilities”, which he argued had been “demonstrated in [the] Syrian campaign and regular large-scale exercises.”¹²⁸
83. Dr Zhao said the US believed China had “moved towards a policy of using nuclear weapons first and early in a conventional war”. There were “reasons why” the US believed so, but Moscow and Beijing viewed this as “a major ... misunderstanding of their policies, or worse, a deliberate US effort to misportray their policies”.¹²⁹ Lord Browne believed the “narrative” of a Chinese nuclear threat was “generated” in the 2018 US Nuclear Posture Review, because the review “had a determined end and needed an excuse”.¹³⁰
84. In contrast, Dr Zhao said Russia and China had concluded that it was the US that intended to “develop nuclear warfighting capabilities and to intentionally lower the threshold of nuclear use”.¹³¹ Mr Baklitskiy thought the US 2018 Nuclear Posture Review included capabilities that would allow the US to “confront Moscow at lower rungs on the escalation ladder”.¹³²
85. Dr Zhao thought Russia and China’s interpretation of US intentions could “drive these countries to respond by developing their own capabilities and readjusting their nuclear postures in ways that emphasise rapid response and flexible nuclear employment options.” This could “increase the chances of nuclear use.”¹³³
86. **We are concerned by the lack of understanding by nuclear possessor states of their respective nuclear doctrines and declaratory policies. Misunderstanding of these policies could increase the risk of use of nuclear weapons.**

The Reagan–Gorbachev doctrine

87. Rear Admiral Gower said what began as a quote in President Ronald Reagan’s 1984 State of the Union speech became the Reagan–Gorbachev doctrine,¹³⁴ that ‘a nuclear war cannot be won and must never be fought’. Ms Nakamitsu

127 [Q 104](#)

128 Written evidence from Andrey Baklitskiy ([NPT0046](#))

129 Written evidence from Dr Tong Zhao ([NPT0038](#))

130 [Q 50](#)

131 Written evidence from Dr Tong Zhao ([NPT0038](#))

132 Written evidence from Andrey Baklitskiy ([NPT0046](#))

133 Written evidence from Dr Tong Zhao ([NPT0038](#))

134 [Q 84](#)

told us she had “appealed to all Nuclear Weapon States bilaterally” to uphold this “principle”.¹³⁵ Dr Ritchie said states “should reiterate repeatedly [this] mantra”; it was “essential messaging.”¹³⁶

88. **The importance of the principle that “a nuclear war cannot be won and must never be fought” has not diminished. The Government should publicly endorse this principle and encourage all nuclear possessor states to do the same.**

135 [Q 6](#)

136 [Q 112](#)

CHAPTER 3: THE NPT AND THE WIDER NON-PROLIFERATION REGIME

The NPT and its bargain

89. Mr Plant said the NPT was “a security bargain between states that wanted to see the Nuclear Weapon States disarm but also did not want their neighbours to become nuclear states.”¹³⁷ Ms Cox described the “fundamental bargain” of the NPT to be that all states “work to prevent the spread of nuclear weapons”, “work towards disarmament” and in return “all states can access the benefits of the peaceful uses of nuclear energy.”¹³⁸
90. Box 2 describes the NPT.

Box 2: Treaty on the Non-Proliferation of Nuclear Weapons (NPT)

The NPT was opened for signature in 1968 and entered into force in 1970. It was extended indefinitely in 1995. 191 states have joined the NPT. It has been ratified by more countries than “any other arms limitation and disarmament agreement”.¹³⁹

The treaty recognised the five existing Nuclear Weapon States at the time it was signed—Russia, the US, the UK, France and China. All five are States Parties to the NPT,¹⁴⁰ although France and China did not become States Parties until 1992. The UK, the US and Russia (formerly the Soviet Union) are the depositary governments of the NPT.¹⁴¹

India, Israel, Pakistan and South Sudan have not signed the NPT. In 2003 North Korea announced its withdrawal.¹⁴²

The NPT contains “the only binding commitment in a multilateral treaty to the goal of disarmament by the Nuclear Weapon States”.¹⁴³ Article 6 sets out that “Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.”¹⁴⁴

137 Q 40

138 Q 94

139 UN Office for Disarmament Affairs, ‘Treaty on the Non-Proliferation of Nuclear Weapons (NPT)’: <https://www.un.org/disarmament/wmd/nuclear/npt/> [accessed 3 April 2019]

140 UN Office for Disarmament Affairs, ‘Treaty on the Non-Proliferation of Nuclear Weapons (NPT)’: <https://www.un.org/disarmament/wmd/nuclear/npt/> [accessed 3 April 2019]

141 UN Office for Disarmament Affairs, ‘Treaty on the Non-Proliferation of Nuclear Weapons (NPT)’: <https://www.un.org/disarmament/wmd/nuclear/npt/text> [accessed 3 April 2019]

142 Arms Control Association, ‘Timeline of the Nuclear Nonproliferation Treaty (NPT)’: <https://www.armscontrol.org/factsheets/Timeline-of-the-Treaty-on-the-Non-Proliferation-of-Nuclear-Weapons-NPT> [accessed 3 April 2019] North Korea’s withdrawal from the NPT is discussed in Chapters 3 and 4.

143 UN Office for Disarmament Affairs, ‘Treaty on the Non-Proliferation of Nuclear Weapons (NPT)’: <https://www.un.org/disarmament/wmd/nuclear/npt/> [accessed 3 April 2019]

144 UN Office for Disarmament Affairs, ‘Treaty on the Non-Proliferation of Nuclear Weapons (NPT)—Text of the Treaty’: <https://www.un.org/disarmament/wmd/nuclear/npt/text> [accessed 3 April 2019]

There is a safeguards system to verify compliance through inspections, managed through the International Atomic Energy Agency (IAEA).¹⁴⁵

The provisions of the NPT envisage a review of its operation every five years. This was reaffirmed by the States Parties at the 1995 NPT Review and Extension Conference.¹⁴⁶ The next Review Conference will be held in 2020. Preparatory Committees are held in the three years running up to each Review Conference;¹⁴⁷ the next will be in New York from 29 April to 10 May 2019.¹⁴⁸

The pillars of the NPT

91. Dr Christopher Ford, Assistant Secretary, Bureau of International Security and Nonproliferation, US Department of State, told us that it had “become commonplace ... to speak of the NPT as having ‘three pillars’—that is, three explicitly or implicitly coequal elements in the form of non-proliferation, disarmament, and the peaceful uses of nuclear technology”. However, a “‘three pillars’” formulation was “not intrinsic to the Treaty or part of its original understanding”.¹⁴⁹ This “imagery of ‘three pillars’ misleads because it tends to suggest coequality”; it was “quite profoundly mistaken, not to mention dangerous to the health of the NPT regime.” The “conceptual and structural core of the NPT is non-proliferation, and this is the foundation upon which rest the two supported ‘structures’ of nuclear disarmament and peaceful uses”.¹⁵⁰
92. Ms Price held a similar view: while there were “other pillars”, which were “part of the bargain”, “the original concept of the treaty is one of non-proliferation”. The pillar on peaceful uses was “the quid pro quo, or benefits, for the planet and humanity that come from having” non-proliferation.¹⁵¹
93. Other witnesses disagreed with Dr Ford. The United Nations Association-UK (UNA-UK) said that “Contesting the co-equality of the pillars of the NPT is factually incorrect—all articles of the treaty are equally legally binding.” The assertion was “irreconcilable with UN guidance”.¹⁵² Paul Ingram, Executive Director, BASIC, said the NPT was called a non-proliferation treaty “because it is both vertical and horizontal¹⁵³ ... Vertical non-proliferation is essentially

145 UN Office for Disarmament Affairs, <https://www.un.org/disarmament/wmd/nuclear/npt/> [accessed 3 April 2019]

146 *Ibid.*

147 UN Office for Disarmament Affairs, ‘NPT Review Conferences and Preparatory Committees’: <https://www.un.org/disarmament/wmd/nuclear/npt-review-conferences/> [accessed 3 April 2019]

148 UN Office for Disarmament Affairs, ‘2019 Preparatory Committee for the 2020 Nuclear Non-Proliferation Treaty Review Conference’: <https://www.un.org/disarmament/wmd/nuclear/npt2020/prepcom2019/> [accessed 3 April 2019]

149 International Relations Committee, Dr Christopher Ford, ‘The Structure and Future of the Nuclear Nonproliferation Treaty’: <https://www.parliament.uk/documents/lords-committees/International-Relations-Committee/foreign-policy-in-a-changing-world/Dr-Christopher-Ford-Assistant-Secretary-Bureau-International-Security-Nonproliferation-US-StateDept.pdf>

150 International Relations Committee, Dr Christopher Ford, ‘The Structure and Future of the Nuclear Nonproliferation Treaty’: <https://www.parliament.uk/documents/lords-committees/International-Relations-Committee/foreign-policy-in-a-changing-world/Dr-Christopher-Ford-Assistant-Secretary-Bureau-International-Security-Nonproliferation-US-StateDept.pdf>. Ms Price had a similar view.

151 Q 22

152 Written evidence from the United Nations Association UK (NPT0028)

153 Horizontal refers to the proliferation of nuclear weapons between states. Vertical refers to the expansion of nuclear capabilities by existing nuclear possessor states.

disarmament, so this is both a disarmament and a non-proliferation treaty. I do not think we can see one as more important than the other.”¹⁵⁴

94. Dr Lyndon Burford, Postdoctoral Research Associate, Department of War Studies, King’s College London, said the UK’s “failure to affirm the equal importance of the pillars constitutes a step backwards from a long-standing norm of support for disarmament and peaceful uses in UK policy statements, and in joint statements by the European Union (EU) and the NPT Nuclear Weapon States which the UK has explicitly endorsed.”¹⁵⁵
95. Mr Ingram said that it was necessary to demonstrate “good will on disarmament” in order to have “moral, legal or any other basis ... to convince other states that they need to engage seriously in non-proliferation measures”.¹⁵⁶ Ms Nakamitsu said that the UN Secretary General considered disarmament and non-proliferation to be “two sides of the same coin”: “We cannot continue to hold non-proliferation obligations unless we also continue to make progress on disarmament obligations.”¹⁵⁷
96. **The UK should stand by its commitment, as a signatory of the Nuclear Non-Proliferation Treaty and one of its three depositary powers, to implementing commitments across all three pillars of the NPT—non-proliferation, peaceful uses of nuclear technology and disarmament.**

The wider regime

97. The NPT is the “core” of a wider non-proliferation regime.¹⁵⁸ It is supported by “a complex web of dozens of international institutions and agreements to prevent the spread of nuclear weapons”.¹⁵⁹ The principal elements of the wider regime are set out in Box 3.

154 [Q 27](#). The same view was given by Diana Ballestas de Dietrich. Written evidence from Diana Ballestas de Dietrich ([NPT0027](#)).

155 Written evidence from Dr Lyndon Burford ([NPT0043](#)). He noted that “The UK statement to the 2017 Preparatory Committee meeting emphasised that the ‘mutually reinforcing pillars ... are complementary goals and should be pursued together, systematically and with equal determination across all three ... while in its statement to the 2012 Preparatory Committee, the UK ‘fully accepted’ that ‘progress must be made across all three pillars in parallel in order to fulfil the ‘Grand Bargain’ at the heart of the NPT.’”

156 [Q 27](#)

157 [Q 5](#)

158 [Q 40](#) (Tom Plant)

159 Written evidence from Dr Ben Kienzle ([NPT0032](#))

Box 3: The wider regime

The IAEA

The IAEA was established in 1957 through the IAEA Statute. It reports to both the UN General Assembly and Security Council. It has “the mandate to work with its Member States and multiple partners worldwide to promote safe, secure and peaceful nuclear technologies”.¹⁶⁰ The IAEA describes its role in the nuclear non-proliferation regime as “a confidence-building measure, an early warning mechanism, and the trigger that sets in motion other responses by the international community if and when the need arises”.¹⁶¹

Each Non-Nuclear Weapon State Party to the NPT concludes a standard safeguards agreement with the IAEA, INFCIRC/153 (Corrected),¹⁶² “with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices,”¹⁶³ to comply with article 3 of the treaty.¹⁶⁴

The voluntary Additional Protocol to the safeguards agreement, approved in 1997, “provides additional tools for verification”.¹⁶⁵ It enables the IAEA “to achieve confidence as to the absence of undeclared materials or activities in a given state”. This usually follows “several years of gathering information, inspecting locations, and analysing data”.¹⁶⁶ As of December 2018, Additional Protocols are in force with 134 States and Euratom. Another 16 States have signed an Additional Protocol but have yet to bring it into force. One State provisionally applies an Additional Protocol to its comprehensive safeguards agreement, pending its entry into force.¹⁶⁷ Some States Parties to the NPT which use nuclear energy, including Brazil, have not signed or ratified an Additional Protocol.¹⁶⁸

The five Nuclear Weapon States are not required to have IAEA safeguards agreements under the NPT. They have all signed voluntary offer safeguards agreements, which permit the IAEA to apply safeguards to material in select eligible facilities. This covers civilian nuclear material and sites. All five Nuclear Weapon States have also concluded Additional Protocols to these voluntary offer safeguards agreements.¹⁶⁹

160 IAEA, ‘History’: <https://www.iaea.org/about/overview/history> [accessed 3 April 2019]

161 IAEA, ‘IAEA Safeguards Overview: Comprehensive Safeguards Agreements and Additional Protocols’: <https://www.iaea.org/publications/factsheets/iaea-safeguards-overview> [accessed 14 March 2019]

162 Arms Control Association, ‘IAEA Safeguards Agreements at a Glance’: <https://www.armscontrol.org/factsheets/IAEAProtocol> [accessed 3 April 2019]

163 UN Office for Disarmament Affairs, ‘Background Information’: <https://www.un.org/disarmament/wmd/nuclear/npt2020/prepcom2017-background/> [accessed 18 March 2019]

164 Written evidence from the Executive Committee of British Pugwash (NPT0003) and UN Office for Disarmament Affairs, ‘Treaty on the Non-Proliferation of Nuclear Weapons—Text of the Treaty’: <https://www.un.org/disarmament/wmd/nuclear/npt/text/> [accessed 3 April 2019]

165 IAEA, ‘Additional Protocol’: <https://www.iaea.org/topics/additional-protocol> [accessed 3 April 2019]

166 Written evidence from the Executive Committee of British Pugwash (NPT0003)

167 IAEA, ‘Additional Protocol’: <https://www.iaea.org/topics/additional-protocol> [accessed 3 April 2019]

168 Written evidence from the Executive Committee of British Pugwash (NPT0003)

169 IAEA, ‘Safeguards agreements’: <https://www.iaea.org/topics/safeguards-agreements> [accessed 3 April 2019]

The Nuclear Suppliers Group (NSG)

The Nuclear Suppliers Group is “a group of nuclear supplier countries that seeks to contribute to the non-proliferation of nuclear weapons through the implementation of two sets of Guidelines for nuclear exports and nuclear-related exports.”¹⁷⁰ It “seeks to strengthen the non-proliferation regime, with the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) as its legal foundation.”¹⁷¹

It has 48 participating governments.¹⁷²

The NSG was founded in response to India’s nuclear test in 1974.¹⁷³ Its Guidelines are “sets of conditions of supply that are applied to nuclear transfers for peaceful purposes to help ensure that such transfers will not be diverted to unsafeguarded nuclear fuel cycle or nuclear explosive activities”. They are not legally binding, but participating governments “commit to apply those Guidelines via their national legislation”.¹⁷⁴

The Conference on Disarmament

The Conference on Disarmament is “the single multilateral disarmament negotiating forum of the international community”. Its terms of reference “include practically all multilateral arms control and disarmament problems”. It has 65 members. It meets in an annual session, with a rotating presidency of four weeks’ duration.¹⁷⁵ It is discussed further in Chapter 4.

UNSC resolutions

UN Security Council Resolutions form part of the nuclear non-proliferation regime. Notable resolutions include Resolution 984 (1995) on security assurances,¹⁷⁶ Resolution 1540 (2004) on preventing the acquisition of weapons of mass destruction by non-state actors,¹⁷⁷ and Resolution 1325 (2000) on women, peace and security.¹⁷⁸

170 Nuclear Suppliers Group, ‘About the NSG’: <http://www.nuclearsuppliersgroup.org/en> [accessed 3 April 2019]

171 Nuclear Suppliers Group, ‘NSG FAQ—How does the NSG fit in the non-proliferation regime?’: <http://www.nuclearsuppliersgroup.org/en/about-nsg/nsg-faq> [accessed 3 April 2019]

172 These are: Argentina, Australia, Austria, Belarus, Belgium, Brazil, Bulgaria, Canada, China, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Kazakhstan, the Republic of Korea, Latvia, Lithuania, Luxembourg, Malta, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, the Russian Federation, Serbia, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, the UK and the US. Nuclear Suppliers Group, ‘Participants’: Nuclear Suppliers Group, ‘Participants’: <http://www.nuclearsuppliersgroup.org/en/about-nsg/participants1> [accessed 3 April 2019]

173 Q 89 (Alexander Kmentt)

174 Nuclear Suppliers Group, ‘NSG FAQ—What are the NSG Guidelines?’: <http://www.nuclearsuppliersgroup.org/en/27-faq/198-what-are-the-nsg-guidelines> [accessed 3 April 2019]

175 UN Office for Disarmament, ‘An Introduction to the Conference’: [https://www.unog.ch/80256EE600585943/\(httpPages\)/BF18ABFEFE5D344DC1256F3100311CE9?OpenDocument](https://www.unog.ch/80256EE600585943/(httpPages)/BF18ABFEFE5D344DC1256F3100311CE9?OpenDocument) [accessed 3 April 2019]

176 UN Security Council, ‘Resolution 984 (1995) Adopted by the Security Council at its 3514th meeting, on 11 April 1995’: <http://unscr.com/en/resolutions/984> [accessed 3 April 2019]

177 UN Office for Disarmament Affairs, ‘UN Security Council Resolution 1540 (2004)’: <https://www.un.org/disarmament/wmd/sc1540/> [accessed 3 April 2019]

178 UN Office of the Special Adviser on Gender Issues and the Advancement of Women, ‘Landmark resolution on Women, Peace and Security’: <http://www.un.org/womenwatch/osagi/wps/> [accessed 3 April 2019] See written evidence from Dr Rebecca Johnson (NPT0034)

Other elements of the regime

Other international initiatives that can be regarded as part of the wider regime include:

- Other prospective non-proliferation and disarmament treaties, including the Comprehensive Nuclear-Test-Ban Treaty and a fissile material cut-off treaty (discussed in Chapter 4);
- Bilateral arms control treaties (discussed in Chapter 4);
- P5 talks on nuclear issues;
- Nuclear security summits (initiated by the Obama Administration);
- Negative security assurances by nuclear-weapon states (see Chapter 2);
- Other treaties and conventions such as the Outer Space Treaty and treaties and conventions prohibiting or limiting weapons and military activities, including biological and chemical weapons, landmines and cluster munitions;¹⁷⁹ and Nuclear-free zones, which are discussed later in this chapter.

*Verification and safeguards**The IAEA*

98. The role of the IAEA is set out in Box 3. The FCO said that IAEA safeguards were “a fundamental component of nuclear non-proliferation.”¹⁸⁰ Dr Hobbs said that the IAEA played “a crucial role in supporting states to develop provisions on nuclear security—providing international guidance, training and support services upon request—including physical protection upgrades, the removal of high-risk materials and the strengthening of security culture.”¹⁸¹

Disarmament verification

99. Dr Rafael Grossi, Permanent Representative of Argentina to the International Organisations in Vienna and President-designate of the 2020 NPT Review Conference, said that beyond the “grandiosity of getting rid of nuclear weapons” was the need for “complicated” technical work on verification. When Nuclear Weapon States decide to disarm, this process would need to be verified “through a ... circle of inspectors”. He said it was not unusual for such technical work to precede political decisions.¹⁸²
100. Verification is a sensitive issue: the FCO said such a process needed to give confidence “that a nuclear-armed state has dismantled its warheads in a way that makes us safer, rather than in a way that proliferates nuclear weapons knowledge, and that such dismantlement is permanent and verifiable”.¹⁸³

179 Written evidence from Dr Rebecca Johnson ([NPT0034](#))

180 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#)) Dr Grossi explained that the Additional Protocol had been developed and the IAEA safeguards regime had been ameliorated in response to the actions of the government of Iraq in the 1990s. [Q 137](#)

181 Written evidence from Dr Christopher Hobbs ([NPT0032](#)) The Baptist Union of Great Britain, the Church of Scotland, the Methodist Church in Britain and the United Reformed Church encouraged the UK to continue to fund the IAEA. Written evidence from the Baptist Union of Great Britain, the Church of Scotland, the Methodist Church in Britain and the United Reformed Church ([NPT0013](#)) Medact expressed concern about its funding model. Written evidence from Medact ([NPT0014](#)) Dr Grossi, however said it was “reasonably resourced”. [Q 142](#)

182 [Q 141](#)

183 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

There is also sensitivity for Nuclear Weapon States in working with Non-Nuclear Weapon States without contributing to proliferation.

101. Dr Grossi said there had “been progress in tackling, or starting to tackle, the technical issues, the methods, the sequences, the technologies, the non-proliferation barriers that you have to set up in order to have a truly multinational inspectorate dealing with nuclear disarmament verification”. This technical work was needed in preparation for a time when disarmament was on the agenda.¹⁸⁴
102. Dr Roberts cautioned that while work on verification technologies was “important” and helped with monitoring and enforcement, there was still no “compliance mechanism that would allow the nuclear-armed states confidently to disarm and [assure] all states that no militarily-significant cheating would go undetected and unchecked”.¹⁸⁵

Disarmament verification work by the UK

103. Ms Price said the UK had “been doing very practical work to demonstrate what is possible and how difficult disarmament verification is”.¹⁸⁶ There are four aspects to this work.
104. First, the FCO said the UK and Norway had worked together since 2007 on “the first ever technical project between a Nuclear and Non-Nuclear Weapon State in this field”.¹⁸⁷ The UK–Norway Initiative works to investigate “the technical and procedural challenges of verifying possible future nuclear disarmament and arms control agreements”.¹⁸⁸
105. Second, the UK participated in the Quad Initiative with the US, Norway and Sweden.¹⁸⁹ This had grown out of the UK–Norway Initiative and verification and arms control exercises between the UK and the US.¹⁹⁰ The Quad Initiative had undertaken “the first ever multilateral disarmament verification exercise”, at RAF Honington in October 2018. This exercise “brought a new level of realism to such exercises by using our former nuclear weapons storage area”.¹⁹¹
106. Third, Ms Price said there was a UN group of government experts on verification with which the UK was engaged.¹⁹²
107. Fourth, the UK contributed to the International Partnership for Nuclear Disarmament Verification (IPNDV). The IPNDV is an initiative including more than 25 countries with and without nuclear weapons, which works to identify challenges associated with nuclear disarmament verification and develop potential procedures and technologies to address them.¹⁹³ The UK

184 [Q 141](#)

185 Written evidence from Dr Brad Roberts ([NPT0020](#))

186 [Q 20](#)

187 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

188 The UN–Norway Initiative, ‘About us’: <https://ukni.info/about-us/> [accessed 18 March 2019]

189 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

190 Representation Permanent Mission of Sweden, Geneva, ‘Statement to be delivered on behalf of the QUAD’ (24 April 2018): <https://www.swedenabroad.se/en/embassies/un-geneva/current/news/statement-to-be-delivered-on-behalf-of-the-quad> [accessed 3 April 2019]

191 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

192 [Q 20](#)

193 IPNDV, ‘About IPNDV’: <https://www.ipndv.org/about/> [accessed 14 March 2019]

had “hosted the IPNDV’s plenary session” and was “very involved in many of the practical working groups”.¹⁹⁴

108. Witnesses praised the UK’s work on verification, in partnership with other countries such as Norway, Sweden, the US and China.¹⁹⁵ Dr Ritchie said the UK’s “valuable and important work” on verifying the dismantlement of nuclear warheads had been “rolled into the wider [US] State Department programme”.¹⁹⁶
109. Witnesses had a number of proposals for further UK work in this area. First, Mr Plant suggested the UK should increase “its financial commitment to arms control verification”.¹⁹⁷ Second, it should increase its political commitment to this work. He said the UK “devotes a lot of attention to nuclear warhead dismantlement verification ... against the day when a great breakthrough is made”. He thought it “more practical to think about technologies that could verify the next arms control treaty”, work that the UK was not undertaking at present.¹⁹⁸
110. A third suggestion, from Dr Hassan Elbahtimy, Lecturer in Science and Security, King’s College London, was for the UK to address “some of the practical questions”, such as how to reduce the number of nuclear weapons and “build up confidence” that disarmament was happening.¹⁹⁹
111. Fourth, witnesses suggested further international co-operation, with China and Middle Eastern countries. Dr Nicola Leveringhaus, Lecturer, War Studies Department, King’s College London, suggested that the UK should “engage China in a separate verification process, perhaps linked to the UK–Norway initiative, or its successors, with a view to understanding China’s position on verification matters beyond its borders”. China had “displayed interest in verification yet seems to have limited experience of working on this issue in a multilateral forum beyond the P5 process”.²⁰⁰ Dr Elbahtimy suggested the UK could help to build “regional capacities in arms control and verification” in the Middle East. Capacity building could “present a tangible contribution” to efforts to build a Middle East WMD-Free Zone (discussed below), and verification work “could contribute to a better-informed discussion about the actual challenges, solutions and opportunities in regional arms control”.²⁰¹
112. **The UK’s active role in developing effective techniques and partnerships for the verification of nuclear disarmament is a helpful contribution to the disarmament agenda. The Government should continue this work, and consider opportunities for using new technologies in verification.**
113. **The Government should consider engaging China in its work on nuclear disarmament verification.**

194 Q 20

195 Q 63 (Dr Elbahtimy); Q 93 (Alexander Kmentt); Q 36 (Tom Plant)

196 Q 107

197 Q 38

198 Q 45

199 Q 63

200 Written evidence from Dr Nicola Leveringhaus (NPT0032)

201 Written evidence from Dr Hassan Elbahtimy (NPT0032)

114. **The Government should consider facilitating discussion and technical work on nuclear verification with Middle Eastern countries, to build regional capabilities and increase dialogue on non-proliferation and disarmament.**

The P5 process

Box 4: The P5 process

In 2008 Lord Browne of Ladyton, then Secretary of State for Defence, suggested establishing a process for the Nuclear Weapon States to discuss their NPT obligations. He said:

“For the first time, I am proposing to host a conference for technical experts from all five recognised nuclear states, to develop technologies for nuclear disarmament.” This technical conference of the laboratories from the five recognised Nuclear Weapon States would meet before the 2010 RevCon, to enable the five states to demonstrate their engagement in a process of mutual confidence building and trust.²⁰²

The chairmanship of the P5 process rotates between the members.²⁰³

The P5 met regularly until 2018, when the process was suspended as a result of the increase in global tensions following the chemical weapons attack in Salisbury.²⁰⁴ Under China’s leadership the P5 process has recommenced,²⁰⁵ and met in Beijing in January 2019.

115. The genesis of the P5 process is set out in Box 4. Lord Browne said the purpose had been “to bring the P5 together in a way that would generate a convincing dialogue that could convince Non-Nuclear Weapon States in the context of the NPT that they were taking their obligations under the treaty seriously.”²⁰⁶ The first P5 conference, held in London in 2009, “succeeded in bringing together for the first time policy officials, military staff and nuclear scientists from all five Nuclear Weapons States”.²⁰⁷
116. Paul Schulte, Honorary Professor, University of Birmingham, and Professor Nicholas J. Wheeler, Director of the Institute for Conflict, Co-operation and Security, University of Birmingham, said it created “a space for senior diplomats and security officials to cultivate a greater awareness of their counterparts’ security fears, and above all, how their own plans and actions may be contributing to these fears.”²⁰⁸ The Minister said that while

202 National Archives, ‘Browne calls for development of Nuclear disarmament technologies’ (2 February 2008): <https://webarchive.nationalarchives.gov.uk/tna/20090317221130/http://www.mod.uk/DefenceInternet/DefenceNews/DefencePolicyAndBusiness/BrowneCallsForDevelopmentOfNuclearDisarmamentTechnologies.htm> [accessed 14 March 2019]

203 Kate Chandley, Background Briefing: The “P5 Process” History and What to Expect in 2015, BASIC (January 2015): https://www.basicint.org/wp-content/uploads/2018/06/basic-2015-p5-background_0.pdf [accessed 14 March 2019]

204 The UK Government has stated that Russia was responsible for the use of the nerve agent Novichok in the attempted assassination of Sergei Skripal in Salisbury in 2018. Gov.uk, ‘Speech—Evidence of Russia’s Involvement in Salisbury Attack’ 96 September 2018): <https://www.gov.uk/government/speeches/you-dont-recruit-an-arsonist-to-put-out-a-fire-you-especially-dont-do-that-when-the-fire-is-one-they-caused> [accessed 14 March 2019]

205 Q 5 (Izumi Nakamitsu)

206 Q 55

207 Written evidence from the Foreign and Commonwealth Office (NPT0035)

208 Written evidence from Paul Schulte and Professor Nicholas J. Wheeler, University of Birmingham (NPT0030)

the Nuclear Weapon States did not “see eye to eye on all issues”, the P5 process increased their “understanding of each other’s policy positions, capabilities and doctrines”. This was “important to avoid miscalculation or misunderstanding, as well as to build trust.”²⁰⁹

117. Lord Browne, however, said he soon became “extremely disappointed” in the process: “I thought I was creating a dynamic for disarmament and peace, and what I created was a cartel—a group of Nuclear-Weapons States that in many other ways could not bear the sight of each other, but when it came to the common ownership of nuclear weapons were very good at articulating an argument as to why they needed nuclear weapons only because the rest of the world did not behave itself well enough.”²¹⁰
118. Dr Tzinieris said the P5 process had “not produced any meaningful progress with regard to disarmament”.²¹¹ Dr Zhao said that it functioned “as a solidarity effort” among the Nuclear Weapon States²¹² and provided “protection against outside pressure for disarmament”.²¹³
119. Dr Tzinieris said the P5 had been “reluctant to engage with humanitarian issues in official policy statements regarding nuclear weapons”. Its response to the Ban Treaty (discussed later in this chapter) “reflected a traditional security approach and overweening reliance on deterrence theories.”²¹⁴ A. Vinod Kumar, Associate Fellow, Institute for Defence Studies and Analyses, New Delhi, said that the role of the P5 in “dismissing the relevance and validity” of the Ban Treaty “cannot be overlooked and should be seen as a sign of their collective aversion to any credible disarmament process”.²¹⁵
120. Andrea Berger, then Senior Research Associate and Senior Program Manager, James Martin Center for Nonproliferation Studies, said the P5 had shifted “away from speaking primarily to an external audience towards speaking more to an internal audience”. This posed a “risk” that “the disillusion among many of the Non-Nuclear Weapon States about what the P5 process is, does and is good for will only increase”.²¹⁶ Mr Plant and Cristina Varriale, Research Fellow, Proliferation and Nuclear Policy, RUSI, said Non-Nuclear Weapon States “were felt to be too broadly excluded from the process and moreover saw little concrete benefit from it”. The process was “unnecessarily opaque”.²¹⁷
121. Dr Anastasia Malygina, Associate Professor, School of International Relations, St Petersburg University, said the P5 countries had had an “agreement to avoid mutual criticism during the NPT review process”. She said that “on the initiative of the Western countries” the P5 had “stepped away from” this agreement, which had “seriously undermined co-operation in spheres where Russia and the West had no serious disagreements”. She said the US, France and the UK had “started to bring up issues not directly related to the non-proliferation of nuclear weapons” in the P5 context. Russia’s view

209 Written evidence from Sir Alan Duncan MP, Minister of State for Europe and the Americas, Foreign and Commonwealth Office ([NPT0040](#))

210 [Q 55](#)

211 Written evidence from Dr Sarah Tzinieris ([NPT0032](#))

212 Written evidence from Dr Tong Zhao ([NPT0038](#))

213 [Q 121](#)

214 Written evidence from Dr Sarah Tzinieris ([NPT0032](#))

215 Written evidence from A. Vinod Kumar ([NPT0015](#))

216 [Q 74](#)

217 Written evidence from Cristina Varriale and Tom Plant ([NPT0037](#))

was this “aggravates the situation within the NPT review cycle, where the atmosphere is already tense”.²¹⁸

122. Ms Berger said the P5 process was “the first time” that China had been involved in a “multilateral semi-disarmament forum”. For as long as China was “actively trying to demonstrate to those outside the P5 that it is the most disarmament-oriented and forward-leaning of the Nuclear Weapon States”, there was “something there that can be built on”.²¹⁹
123. Lord Browne said that China deserved “a significant amount of credit for what they have achieved” in restarting the process, and this was a positive step ahead of the 2020 RevCon.²²⁰ Opportunities for UK chairmanship of the P5 are discussed in Chapter 5.
124. **The P5 is an important initiative in nuclear diplomacy, which could play a positive role in co-ordinating the implementation by the five Nuclear Weapon States of their Nuclear Non-Proliferation Treaty commitments. It must not become a ‘cartel’ of Nuclear Weapon States, simply lecturing others on why their continued possession of these weapons is justified.**

P5 meetings in the run-up to the 2020 RevCon

125. Ms Berger described China’s leadership of the P5 process as “limited”, “but the fact that it has been willing to step forward and take on some projects in the P5 context” had provided a foundation.²²¹ Ms Price said the group was working on a glossary of nuclear terminology and a common reporting format, which was “a way of encouraging transparency on the part of other P5 members to show the rest of the NPT membership that we are engaged and we are talking to each other”.²²²
126. The Baptist Union of Great Britain, the Church of Scotland, the Methodist Church in Britain and the United Reformed Church thought that “agreement on definitions and reporting standards may be necessary”, but “future success” was “likely to be measured in terms of the quality of discussion around nuclear doctrines, arms control and disarmament”.²²³
127. Ms Nakamitsu said the group had “had a substantive engagement” on “how to move forward with the Article 6 obligations”. They had “also started to discuss nuclear doctrines, their security doctrines, and some of the measures that they could pursue potentially on transparency”.²²⁴ Mr Franklin said that “as part of the P5” they had met “in the margins of the UN First Committee”, and “ had a fairly detailed presentation from the nations on our nuclear doctrine and policy”.²²⁵ Ms Nakamitsu said that “interesting conversations and discussions” were “still taking place among the P5”, and this would be “one of the most important elements when it comes to the grand bargain put on non-proliferation and disarmament going together”.²²⁶

218 [Q 132](#)

219 [Q 74](#)

220 [Q 55](#)

221 [Q 74](#)

222 [Q 22](#)

223 Written evidence from the Baptist Union of Great Britain, the Church of Scotland, the Methodist Church in Britain and the United Reformed Church ([NPT0013](#))

224 [Q 5](#)

225 [Q 163](#)

226 [Q 5](#)

128. The P5 met in Beijing in January 2019. The Minister said the meeting had included commitments—set out in the Chairman’s note—to sharing responsibility for international peace and security, jointly safeguarding the NPT and continuing to use the P5 platform for dialogue. A “public session with academic representatives” had been held on the second day of the conference.²²⁷
129. Dr Malygina said that the fact that no joint statement was agreed in January showed that “trust is really very low.”²²⁸ Dr Zhao said the nuclear glossary had been an “important deliverable” of the meeting, but it demonstrated the limited capability of the P5 format to generate progress. There had been “little agreement on nuclear reduction or greater transparency; even on less controversial/sensitive issues, such as the joint development of nuclear disarmament verification methodology and technology”.²²⁹
130. **We welcome the role played by China as the chair of the P5 process in 2018–19. Trust between the P5 remains low, and meetings in the P5 format could help to build understanding and trust between these states. This could, in the run up to the 2020 Review Conference, contribute to a reduction in the risk of nuclear use.**

Assessing the NPT regime

131. Dr Grossi said the NPT had “lived through ups and downs in the cycle of history, with the end of the Cold War and ... the emergence of new challenges. The treaty arches over all these events.”²³⁰
132. Dr Elbahtimy said that “From the early to mid-1990s” the NPT had become “an almost universal regime, a set of rules that were to be applied to everyone”.²³¹ The FCO told us that “The majority of states recognise their obligation to support and reinforce the existing counter-proliferation and disarmament framework.”²³²
133. While the FCO considered it to be “a success in all three of its pillars”,²³³ Rear Admiral Gower assessed that only “two of the three pillars”—non-proliferation and peaceful uses—had been “very successful”; there was “dissatisfaction with the disarmament pillar and the perceived lack of progress”.²³⁴ We consider each pillar in turn.

Non-proliferation

134. Our witnesses praised the record of the NPT in containing the threat of horizontal proliferation.²³⁵ Ms Nakamitsu said the NPT was “one of the

227 Written evidence from Sir Alan Duncan MP ([NPT0040](#))

228 [Q 132](#)

229 Written evidence from Dr Tong Zhao ([NPT0038](#))

230 [Q 135](#)

231 [Q 61](#); China and France signed and ratified the NPT in 1992.

232 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#)) The three depositary governments issued a statement in June 2018, to mark 50 years since the NPT was opened for signature, to “celebrate the immeasurable contributions this landmark treaty has made to the security and prosperity of the nations and peoples of the world”. US Department of State, ‘Media note—Joint Statement by the Foreign Ministers of the Depositary Governments for the Treaty on the Non-Proliferation of Nuclear Weapons’ (28 June 2018): <https://www.state.gov/r/pa/prs/ps/2018/06/283593.htm> [accessed 28 March 2019]

233 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

234 [Q 80](#)

235 [Q 80](#) (Rear Admiral John Gower); [Q 53](#) (Lord Browne of Ladyton)

most successful treaties ... there was a prediction that there would be 30 or 40 nuclear-armed states, it has prevented that.”²³⁶ Mr Koenders said there could have been “much more” proliferation, citing the examples of Libya, Kazakhstan and South Africa.²³⁷ Ms Price said that it had “prevented countries from acquiring nuclear weapons ... we have the five recognised weapon states and roughly four others, so that is a success.”²³⁸

135. Dr Elbahtimy said that that international regimes were “more than just the words in the treaties themselves; they have some moral authority”.²³⁹ The NPT has created a norm against proliferation: Mr Plant said that were a state to withdraw from the NPT “there would be a succession of major partners beating down their door to make plain the consequences”.²⁴⁰ Lord Browne said that the acquisition of nuclear weapons had become a route to “pariah” status. It was “the only time in my lifetime when no country is manifestly seeking to develop a nuclear-weapons system” which was “an amazing achievement, and a significant part is down to this treaty”.²⁴¹
136. Dr Grossi said that “countries that violate or find themselves in a position marginal to the NPT would have enormous trouble internationally”. The consequences would be referral to the UN Security Council, and “enormous costs of entry for whatever they may like to do in the peaceful uses area—getting technology and co-operation—let alone the cases where they proliferate or intend to proliferate”. He said that “for countries in good standing in the international community”, being a State Party to the NPT was “an indispensable rule of civility in international life”.²⁴²
137. However, while the NPT has been successful in containing proliferation, it has not prevented it entirely. Since the NPT was signed in 1968, four states have developed nuclear weapons: North Korea, India, Pakistan and Israel.
138. Dr Grossi said that because of the way the NPT is articulated, and because it “operates in conjunction with the safeguards system administered by the IAEA”, it was “very difficult” for the development of nuclear weapons by a Non-Nuclear Weapon State to go unnoticed. North Korea “had to leave the NPT” because of this work.²⁴³
139. Mr Kumar, however, said that North Korea was the most “destabilising” to the NPT regime of the four, because it had been a State Party and abused its provisions before unilaterally leaving the treaty.²⁴⁴ Ms Berger said it had taken “a systematic sledgehammer to all the norms that the NPT community has been trying to create about not testing, responsible nuclear conduct and, indeed, proliferation”.²⁴⁵

236 Q 3

237 Q 148. Libya gave up its nuclear programme in 2003. Kazakhstan inherited possession of Soviet nuclear weapons when the Soviet Union collapsed the USSR dissolved, and then returned the weapons to Russia. South Africa secretly built a nuclear weapons capability, but announced in 1993 that it had shut it down four years earlier. Karl P. Mueller, ‘Forget the ‘Libya model’ for North Korea’, Reuters (1 June 2018): <https://www.reuters.com/article/us-mueller-northkorea-commentary/commentary-forget-the-libya-model-for-north-korea-idUSKCN1IX549> [accessed 3 April 2019]

238 Q 13

239 Q 58

240 Q 47

241 Q 53 He acknowledged that North Korea has already successfully developed a nuclear weapon.

242 Q 137

243 Q 131

244 Written evidence from A. Vinod Kumar (NPT0015)

245 Q 76

140. Mr Kumar said that, although less of a challenge to the NPT regime than North Korea, India, Pakistan and Israel “continue to be the key inspiration for the deviant behaviour intermittently seen among many NPT state-parties”. Iran, for example, had “cited the Indian case throughout the negotiations that were undertaken to address its nuclear deviance”.²⁴⁶
141. Dr Clegg said that India, Pakistan and Israel’s ability to develop nuclear weapons “without much censure”, while Iran and North Korea had been subjected to sanctions, demonstrated “double standards” by the international community, which undermined the NPT.²⁴⁷ (Iran is discussed in Chapter 4.)
142. Dr Paul said the NPT was “interpreted by India as a western ploy or ‘trojan horse’ designed to disrupt economic prosperity and the right to self-determination”. India regarded itself to be “exceptional” and had sought a “back door to the privileges previously reserved exclusively to NPT” (such as access to civilian technology, discussed below).²⁴⁸
143. Dr Paul said there was a “paradox” to Pakistan’s reluctance to sign the NPT. “On the one hand, policy-framers accept the non proliferation norm” and were “keen to impress their intention to pursue disarmament talks with India”, but on the other, “nuclear proliferation in the form of Chinese technical assistance is also viewed as essential for meeting Pakistan’s security needs”.²⁴⁹
144. Dr Avner Cohen, Professor of Nonproliferation Studies, Middlebury Institute of International Studies at Monterey, said that Israel’s ‘nuclear opacity’ (see Chapter 2), had given it a “special ‘exemption’ as far as its nuclear conduct and policy”. It was “the only nuclear power whose conduct and policies are officially ‘off discourse’, both domestically and by friendly foreign governments”. He said that “all major Western countries, the UK included, align themselves behind the American policy on Israel’s nuclear capability. They all quietly accept Israel’s nuclear ‘exemption’ while publicly claiming ignorance.”²⁵⁰
145. He said that Israel had refused to join the NPT, and paid “almost no price—political, diplomatic or even moral—for nuclear possession”.²⁵¹ This was “a constant sore for both the credibility and integrity of the global non-proliferation regime as well as for the non-proliferation stance of those Western states that support the nuclear exemption”.²⁵²
146. Ms Nakamitsu said that universal membership of the NPT was “probably not in sight”.²⁵³ The UK continues “to work with all three countries to bring them more into the international non-proliferation regime and to encourage them to sign the NPT as Non-Nuclear Weapon States”.²⁵⁴

246 Written evidence from A. Vinod Kumar (NPT0015)

247 Written evidence from Dr Jenny Clegg (NPT0021)

248 Written evidence from Dr Rishi Paul (NPT0024)

249 Written evidence from Dr Rishi Paul (NPT0024)

250 Written evidence from Dr Avner Cohen (NPT0048)

251 Written evidence from Dr Avner Cohen (NPT0048)

252 Written evidence from Professor Avner Cohen (NPT0048)

253 Q 3

254 Written evidence from the Foreign and Commonwealth Office (NPT0035). The Government believes that there are only three nuclear possessor states ‘outside’ the NPT—India, Israel and Pakistan—as North Korea signed the treaty and the Government contests Pyongyang’s assertion that it withdrew from it. This is discussed in more detail in Chapter 4.

147. Mr Kumar noted that, while not signatories, both India and Pakistan have declared adherence to the principles of the NPT.²⁵⁵ Although NPT membership was not likely, Shatabhisha Shetty, Deputy Director, European Leadership Network, thought it important to “continue to try” to engage them.²⁵⁶ Ms Nakamitsu advocated keeping these states “engaged in disarmament and security platforms, including the UN and other multilateral platforms.”²⁵⁷ Dr Meier said they had participated in the nuclear security summits during the Obama Administration, which had been useful.²⁵⁸
148. Trident Ploughshares said that while India, Pakistan and Israel joining the NPT would be “helpful”, “the main issue ... undermining the NPT” was “the failure of the nuclear-armed states” to meet their disarmament obligations²⁵⁹ (discussed below).

Peaceful uses

149. Rear Admiral Gower said the peaceful uses pillar had “largely been successful, because it tied in with the non-proliferation pillar”.²⁶⁰ It had “allowed a large number of Non-Nuclear Weapons States to acquire full nuclear technology”.²⁶¹
150. Dr Grossi said this *quid pro quo* was important because nuclear energy continued to be “an important factor in the energy matrix of many countries, particularly the big emerging economies”.²⁶² For example, Argentina’s civil nuclear programme had “thrived after joining all the nuclear regulations and nuclear norms”. It was also “one of the few exporters of nuclear technology in the southern hemisphere, precisely because [Argentina] joined the NPT and the export control regimes”. The message he took to developing countries, was that “everything they do in their small research reactor or their nuclear medicine facility, be it in north or southern Africa, central America or south-east Asia, is possible because there is an NPT that allows for it”.²⁶³

The Nuclear Suppliers Group

151. The FCO said that the NSG, in regulating transfers of nuclear materials for peaceful uses (outlined in Box 3), was “a fundamental component of nuclear non-proliferation”.²⁶⁴ Dr Grossi said countries not party to the NPT faced a “high cost of entry” for nuclear materials for civilian use, because those outside the NPT could not be members.²⁶⁵
152. Witnesses raised two issues relating to the NSG. First, the Executive Committee of British Pugwash said that the NSG had “been a source of tension within the NPT community” for many years. Article 4 of the NPT

255 Written evidence from A. Vinod Kumar ([NPT0015](#)). Pakistan has in the past been a source of nuclear proliferation: in 2004, Abdul Qadeer (A.Q.) Khan, a scientist famous for his role in developing Pakistan’s nuclear arsenal, confessed to having illegally proliferated nuclear weapons technology to Iran, Libya, and North Korea. Catherine Collins and Douglas Frantz, ‘The Long Shadow of A.Q. Khan’, Foreign Affairs (31 January 2018): <https://www.foreignaffairs.com/articles/north-korea/2018-01-31/long-shadow-aq-khan> [accessed 3 April 2019]

256 [Q 31](#)

257 [Q 3](#)

258 [Q 118](#)

259 Written evidence from Trident Ploughshares ([NPT0005](#))

260 [Q 80](#)

261 [Q 13](#) (Sarah Price)

262 [Q 142](#)

263 [Q 137](#)

264 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

265 [Q 137](#)

“contains an undertaking to facilitate transfers” of nuclear technologies to signatories. However, the NSG had a “bias towards” the denial of the transfer of dual-use nuclear technology. The Non-Aligned Movement (NAM),²⁶⁶ and some non-NAM members, viewed this as “inconsistent with Article 4” of the NPT. It said that these countries argued that States Parties had the “sovereign right to make use of all nuclear technologies as long as the use is peaceful, and the right is exercised in conformity with the NPT’s non-proliferation provisions”. This tension was “unlikely to pose an existential threat to the NPT” but presented “an ongoing challenge for nuclear diplomacy.”²⁶⁷

153. Second, witnesses said that the treatment of India by the Nuclear Suppliers Group had tested the NPT regime. India has sought membership but China has blocked its admission, because it has not signed the NPT.²⁶⁸ However, in 2008, under the US–India Civilian Nuclear Co-operation Agreement, India was “allowed to buy and sell nuclear fuel and technology with the rest of the world for civilian purposes, without having to join the Nuclear Non-Proliferation Treaty ... or dismantle any of its existing nuclear weapons or its nuclear weapons-making programme”. Under the terms of the deal, India agreed to separate its civilian nuclear facilities from those that were part of its strategic programme, and open up its civilian facilities to inspections by the IAEA.²⁶⁹
154. Dr Meier said this exemption was “an example of how not to do it. We have watered down safeguard standards and nuclear export control standards without India committing to significant steps towards nuclear disarmament and arms control to constrain its nuclear capabilities”. This damaged both the NSG and the NPT.²⁷⁰ Mr Kmentt said that “if a country such as India ... that has stayed outside the NPT could nevertheless gain access to the benefits with respect to nuclear co-operation, one would lose one of the key points of keeping countries in the NPT.”²⁷¹
155. Dr Adil Sultan Muhammad, Visiting Research Fellow, War Studies Department, King’s College London, said that granting “country-specific exemptions to [a] non-NPT state like India” was “likely to create further dissent amongst the NPT as well as other non-NPT states”.²⁷² Dr Paul said Pakistan was seeking similar exemptions to the NSG rules as had been granted to India. He thought this “could restore the political imbalance and signal genuine inclusivity, whilst also strengthening some technical dimensions of the global non proliferation and export control regimes.”²⁷³

266 The NAM was created in 1961, to “create an independent path in world politics that would not result in member states becoming pawns in the struggles between the major powers.” As of April 2018, it had 120 members. NTI, ‘Non-Aligned Movement (NAM)’: <https://www.nti.org/learn/treaties-and-regimes/non-aligned-movement-nam/> [accessed 3 April 2019]

267 Written evidence from the Executive Committee of British Pugwash (NPT0003)

268 ‘US: India fulfils all conditions, but out of Nuclear Suppliers Group due to China’s veto’, The Times of India, (13 September 2018): <https://timesofindia.indiatimes.com/india/us-india-meets-all-qualifications-to-be-member-of-nsg/articleshow/65792316.cms> [accessed 3 April 2018]

269 Subrata Ghoshroy, ‘Taking stock: The US-India nuclear deal 10 years later’, Bulletin of the Atomic Scientists (16 February 2016): <https://thebulletin.org/2016/02/taking-stock-the-us-india-nuclear-deal-10-years-later/> [accessed 3 April 2019]

270 Q 118

271 Q 89

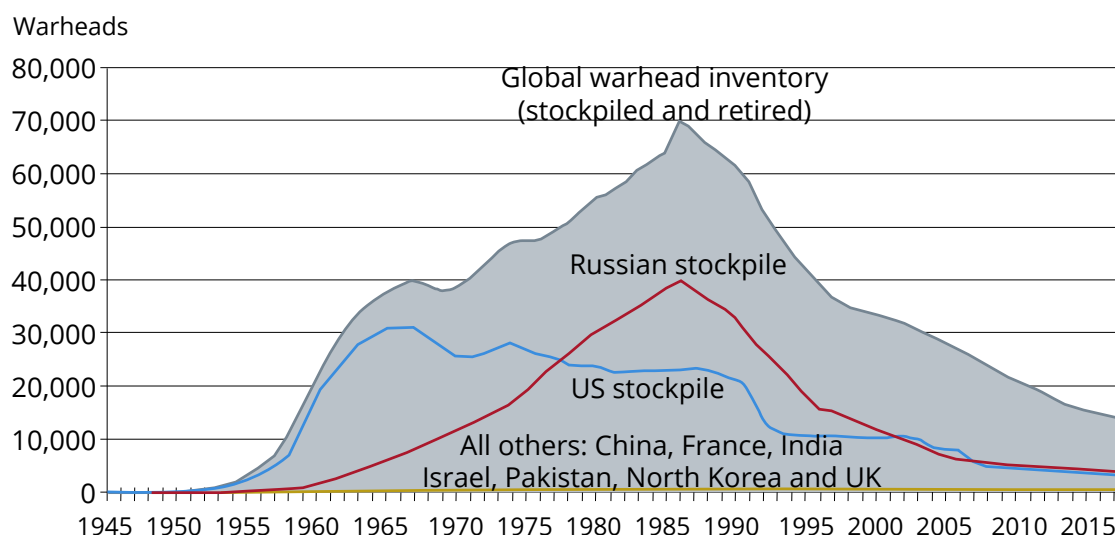
272 Written evidence from Dr Adil Sultan Muhammad (NPT0032)

273 Written evidence from Dr Rishi Paul (NPT0032)

Disarmament

156. Ms Nakamitsu said that, compared to the peak of the Cold War, nuclear disarmament had “progressed enormously ... Some 88% of nuclear arsenals have been reduced”.²⁷⁴
157. Ms Price said the NPT had given the Nuclear Weapon States “the confidence” to disarm. Around “three-quarters of the nuclear warheads that existed” had been disposed of.²⁷⁵ Ms Cox said “the number of nuclear weapons deployed on European soil” had been reduced “significantly—by about 85%—since the end of the Cold War.”²⁷⁶ The five Nuclear Weapon States had endorsed, and continued to promote, the ‘step-by-step’ approach to achieve disarmament, which “envisages measures taken in tandem with an improving security environment”.²⁷⁷ Ms Price said a “very long-term view” was needed—the focus should be on “the reductions that have happened”.²⁷⁸
158. Figure 3 shows the estimated nuclear warhead inventories globally from 1945 to 2018.

Figure 3: Estimated global nuclear warhead inventories, 1945–2018



Source: Hans M. Kristensen and Robert S. Norris, *Federation of American Scientists*, ‘Status of World Nuclear Forces’: <https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/> [accessed 26 March 2019]

159. However, Ms Nakamitsu said that while the world had once been “moving towards a substantive Article 6 implementation”, “that movement has stalled”. “The number of nuclear arsenals today is some 14,000, and 90% of those are still owned by the two nuclear superpowers.”²⁷⁹ Dr Roberts acknowledged that the “step-by-step process embodied in the NPT implementation process” had “lost credibility”. NPT diplomacy had “come face-to-face with ambitions and commitments that proved unrealistic in the circumstance”.²⁸⁰

274 Q 5

275 Q 13

276 Q 96

277 Q 30 (Shatabhisha Shetty)

278 Q 163

279 Q 5

280 Written evidence from Dr Brad Roberts (NPT0020)

160. Dr Grossi said the disarmament provisions of the NPT were “under great stress”.²⁸¹ The “big question” facing “all the 191 members of the treaty” was “whether the fact that we have not reached the final goal of a world without nuclear weapons would put the NPT into question “. ²⁸²
161. BASIC said that lack of progress on disarmament was a result of “the current security and diplomatic environment”²⁸³ (discussed in Chapter 2). Mr Miller said the US, the UK and France had “reduced their nuclear arsenals dramatically since the end of the Cold War”, but “Russia has maintained a bloated nuclear force and China is busily expanding its own”. He dismissed the suggestion that the NPT was “in peril because the Nuclear Weapons States have not eliminated all of their nuclear weapons” as “wrongheaded”.²⁸⁴
162. Ms Cox said it was “clear that the current conditions are not right for further reductions”, but “we try to do what we can to create the right conditions, we have to balance that with the security environment in which we live.”²⁸⁵ Rear Admiral Gower cautioned that advocates of disarmament did not “take into account the reductions that have taken place”. However, he agreed “that it is right to perceive today that the disarmament pillar goals are further away and less visible than they were in 2009–10”.²⁸⁶
163. Dr Tzinieris noted that many countries argued that the NPT required a “re-balancing of the relative value assigned to the three pillars” to give more weight to disarmament.²⁸⁷ Dr Ritchie said many countries were “concerned that the nuclear-armed states will never deliver on their commitments to disarm and that they view their possession of nuclear weapons as permanent”.²⁸⁸ Ms Fihn concluded that “disarmament does not happen in that treaty.”²⁸⁹
164. Dr Tzinieris said this was in part due to how the NPT was drafted. First, “Article 6, which concerns disarmament, is lacking in legal strength and its meaning is open to interpretation.”²⁹⁰ Dr Grossi said it contained “no chronology or specifically set timelines”.²⁹¹ Second, the “implicit hierarchy” between those with and without nuclear weapons was “encapsulated within the NPT”, which rendered it “incapable of unconditionally delegitimising nuclear weapons”.²⁹²
165. Scientists for Global Responsibility said the failure of Nuclear Weapon States to fulfil their disarmament commitments under the NPT “provides greater justification for [nuclear possessor states] outside the treaty to follow suit.”²⁹³
166. We consider below two particular challenges relating to disarmament under the NPT—nuclear modernisation programmes and issues surrounding the Middle East WMD Free Zone.

281 [Q 134](#)

282 [Q 135](#)

283 Written evidence from BASIC ([NPT0020](#))

284 Written evidence from Franklin Miller ([NPT0042](#))

285 [Q 96](#)

286 [Q 80](#)

287 Written evidence from Dr Sarah Tzinieris ([NPT0032](#))

288 Written evidence from Dr Nick Ritchie ([NPT0010](#))

289 [Q 105](#)

290 Written evidence from Dr Sarah Tzinieris ([NPT0032](#))

291 [Q 135](#)

292 Written evidence from Dr Sarah Tzinieris ([NPT0032](#)) Also see [Q 163](#) (Sir Alan Duncan)

293 Written evidence from Scientists for Global Responsibility ([NPT0017](#))

167. **The Nuclear Non-Proliferation Treaty remains a critical part of international security. The success of the treaty will remain of central importance to the UK's security and to the rules-based international order as a whole.**
168. **The Nuclear Non-Proliferation Treaty's successes—near-universal membership, a considerable reduction in nuclear stockpiles since the 1980s, and the establishment of an international norm against new states acquiring nuclear weapons—should be lauded.**
169. **The presence of nuclear-armed states outside the Nuclear Non-Proliferation Treaty remains a challenge. The UK should pursue opportunities to include nuclear non-proliferation and disarmament in its bilateral discussions with India, Pakistan and Israel.**
170. **Although nuclear possessor states outside the Nuclear Non-Proliferation Treaty are unlikely to disarm in the short term, the UK should continue to advocate for the universalisation of the treaty.**
171. **Largely as a result of the worsening security environment, global progress towards disarmament has stalled. We urge the Government to set out its view on what the necessary global conditions for disarmament would be, and use its position in the P5 to encourage progress under this pillar of the NPT.**

Nuclear modernisation programmes

172. Ms Nakamitsu said “all nuclear-weapon states are engaged in what they call modernisation.”²⁹⁴ The potential implications of modernisation for nuclear risk are explored in Chapter 2.
173. The FCO said that “Maintaining and renewing elements of a State's nuclear deterrent capability to ensure its continued safety and reliability, including through replacement and updating of obsolete elements of the system as they reach the end of their operational life” was “a necessary aspect of being a responsible nuclear weapon state.” This was “fully consistent with obligations under the Article 6 of the Nuclear Non-Proliferation Treaty.”²⁹⁵
174. However, Ms Nakamitsu said that “qualitatively, Nuclear-Weapon States might be in fact increasing their nuclear capability”.²⁹⁶ Dr Zhao said modernisation could lead to enhanced capabilities—such as the greater accuracy of missiles, and more advanced missile retargeting capability.²⁹⁷ Dr Meier described this as “vertical proliferation within the Nuclear Weapon States”,²⁹⁸ a point also made by Mr Plant and BASIC.²⁹⁹
175. Dr Tzinieris said that safety and risk reduction were “rarely the principal motivation for modernisation programmes”. Both Non-Nuclear Weapon States and civil society groups were “becoming increasingly wary of attempts to frame modernisation programmes in disingenuous ways”.³⁰⁰ The Executive

294 [Q 6](#)

295 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

296 [Q 6](#)

297 Written evidence from Dr Tong Zhao ([NPT0038](#))

298 [Q 116](#)

299 [Q 40](#); written evidence from BASIC ([NPT0020](#)) Vertical proliferation is the increase of nuclear capabilities within a state.

300 Written evidence from Dr Sarah Tzinieris ([NPT0032](#))

Committee of British Pugwash said that “the signal that modernisation and renewal ... sends to NPT Non-Nuclear Weapon States” was “deplorable”.³⁰¹

176. Scientists for Global Responsibility said that “Any and all renewal or nuclear ‘modernisation’ programmes fundamentally undermine nuclear disarmament and non-proliferation regimes”.³⁰² From the perspective of Non-Nuclear Weapon States, Mr Kmentt said that none of the Nuclear Weapon States had taken “significant steps to move away from their reliance on nuclear weapons”.³⁰³
177. Dr Zhao and Diana Ballestas de Dietrich, former Policy and Strategy Officer, Office of the Executive Secretary of the Preparatory Commission of the Comprehensive Nuclear-Test-Ban Treaty Organisation, said both renewal programmes and technological developments underscored and perpetuated reliance on nuclear weapons”.³⁰⁴
178. We consider the modernisation programmes of the nuclear possessor states in turn.

Russia

179. Mr Heisbourg said Russia was attempting “to make up for its post-Soviet weaknesses” through “‘technological creativity’, including great ambiguity about the precise nature of its new weapons systems”. It was “erasing and blurring the distinction between conventional and nuclear”.³⁰⁵
180. For example, Mr Miller said Russia had four new SSBNs—ship, submersible nuclear ballistic missiles—and “Mr Putin also routinely boasts about new exotic nuclear systems Russia is building”.³⁰⁶ These included the ‘Kanyon’ torpedo—a prototype autonomous underwater nuclear-powered and nuclear-armed weapon, which can deliver both conventional and nuclear payloads³⁰⁷—and a nuclear powered cruise missile.³⁰⁸ It successfully tested the Avangard—a hypersonic nuclear-capable weapon designed to manoeuvre in the upper atmosphere³⁰⁹—in December 2018.³¹⁰

The US

181. Mr Plant said the aspects of the US’s nuclear programme that had already been funded were “modernisation”, but the US was “more open to

301 Written evidence from the Executive Committee of British Pugwash ([NPT0003](#))

302 Written evidence from Scientists for Global Responsibility ([NPT0017](#))

303 [Q 93](#)

304 Written evidence from Diana Ballestas de Dietrich ([NPT0027](#)) and from Dr Tong Zhao ([NPT0038](#)). Dr Zhao said these programmes strengthened “parochial bureaucratic interests” and reinforced “entrenched beliefs” in nuclear possessor states.

305 [Q 87](#)

306 Written evidence from Franklin Miller ([NPT0042](#))

307 ‘Russia releases first video footage of new Kanyon/Status-6 nuclear torpedo’, Naval Today (19 July 2018): <https://navaltoday.com/2018/07/19/russia-releases-first-video-footage-of-new-kanyon-status-6-nuclear-torpedo/> [accessed 3 April 2019]

308 Written evidence from Franklin Miller ([NPT0042](#))

309 Ankit Panda, ‘Russia Conducts Successful Flight-Test of Avangard Hypersonic Glide Vehicle’, The Diplomat (27 December 2018): <https://thediplomat.com/2018/12/russia-conducts-successful-flight-test-of-avangard-hypersonic-glide-vehicle/> [accessed 3 April 2019] Hypersonic weapons travel at speeds of over Mach 5 and are also capable of aerodynamic flight. Written evidence from Martin Everett ([NPT0032](#))

310 Oliver Carroll, ‘Putin heralds successful tests of Russia’s new Avangard hypersonic nuclear weapons’, *The Independent* (26 December 2018): <https://www.independent.co.uk/news/world/europe/vladimir-putin-russia-hypersonic-new-nuclear-weapon-avangard-a8699506.html> [accessed 3 April 2019]

accusations” about the plans set out in the 2018 Nuclear Posture Review.³¹¹ Dr Clegg said this had “reversed the previous policy of promoting nuclear arms control”—it placed “new emphasis on the role of nuclear weapons in US national security strategy, promoting the development of new nuclear capabilities, including low-yield tactical nuclear weapons”.³¹²

182. Mr Miller took a different view: the US had not deployed a new nuclear system “in this century” and would “not begin to field new systems until the mid-to-late 2020s”. He said that without modernisation the existing US system would “have to be retired without replacement”.³¹³
183. PAX said that some countries which participate in nuclear sharing with the US were also engaged in modernisation. Germany, Italy, Belgium and the Netherlands have signed contracts for “the modernisation of bunkers designed to continue hosting the US B61 gravity bombs”.³¹⁴

China

184. Dr Leveringhaus said China’s modernisation programme had been “underway since the 1990s” and was “now starting to bear fruit under Xi Jinping”.³¹⁵ Dr Clegg said China had been “investing in and modernising its ground based cruise and ballistic missiles systems which would have the capability to strike US bases, for example in Okinawa and Guam, and possibly destroy a US aircraft carrier in a single strike”.³¹⁶
185. Mr Miller said China was not just modernising but expanding its nuclear capabilities. It had been “deploying for years tens each of two new types of ICBMs, has four new SSBNs with another building, is seeking to build a new long-range bomber, and has the most formidable ballistic missile programme in the world”.³¹⁷ Dr Roberts said it had “not embraced nuclear transparency while it modernises and expands”.³¹⁸

The UK

186. Ms Price said that “as a responsible nuclear-weapons state, as long as we possess weapons we need to maintain them to make sure that they are in good condition and that we have the right arsenal for our legitimate deterrent and self-protection defence. We also need to ensure that anything obsolete is renewed.”³¹⁹
187. Mr Plant said it was “fair to say that the UK’s is more accurately described as nuclear modernisation than, say, Russia’s progress”.³²⁰ Rear Admiral Gower said the UK was “probably two-thirds of the way through a cyclical expenditure, having decided to replace the delivery platform—the submarines—having essentially agreed before that to co-fund the missile extensions with the US.”

311 [Q 40](https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF) United States Department of Defense, *Nuclear Posture Review 2018* (February 2018): <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF> [accessed 14 March 2019]

312 Written evidence from Dr Jenny Clegg ([NPT0021](#))

313 Written evidence from Franklin Miller ([NPT0042](#)). He took the same view of the UK nuclear modernisation programme.

314 Written evidence from PAX ([NPT0018](#))

315 Written evidence from Dr Nicola Leveringhaus ([NPT0032](#))

316 Written evidence from Dr Jenny Clegg ([NPT0021](#))

317 Written evidence from Franklin Miller ([NPT0042](#))

318 Written evidence from Dr Brad Roberts ([NPT0020](#))

319 [Q 152](#)

320 [Q 40](#)

The “third leg of the modernisation” would be “sustaining a warhead to the end of the life of the submarine and the missile.”³²¹

188. Ms Fihn, however, was “disappointed in the UK’s modernisation programmes of its nuclear weapons”.³²² Dr Ritchie said “the fact that we are recapitalising our Trident SSBN programme and recommitting to nuclear deterrence for another generation, talking of being a nuclear armed state into the 2070s and 2080s and revalidating the importance and centrality of nuclear weapons for our security, cannot but undermine anything that we may do to show that we are taking short-term to long-term nuclear disarmament seriously.”³²³

France

189. Rear Admiral Gower said France’s modernisation timetable was largely aligned with that of the UK.³²⁴ France’s airborne and submarine weapons are due to be updated in around 2035.³²⁵ PAX said that parts of the French modernisation programme—the design and development of the ASMPA (strategic and ultimate deterrent air-launched nuclear missile) to extend its life beyond 2035 and its successor, ASN4G, which will become operational in 2035—were examples of contracts which undermined the non-proliferation and disarmament regime, “by engaging companies for work related to nuclear weapon production and maintenance for decades”.³²⁶
190. France plans to undertake concept studies for a new nuclear warhead, as the current systems will become obsolete in the 2030s.³²⁷ Its nuclear deterrent will receive €37 billion (£31.9 billion) by 2025.³²⁸

Nuclear possessor states outside the NPT

India

191. Mr Kumar said that India was increasing its arsenal in a way that contributed to the “global trend of nuclear re-armament”.³²⁹ Mr Plant said that, compared to China, India’s capabilities were “significantly further behind”.³³⁰ It had “recently declared its accomplishment of a nuclear triad”—land, sea and air capabilities—“through the operationalisation of its nuclear-armed and-powered nuclear submarine force”.³³¹
192. Dr Paul said India’s pursuit of these capabilities were not necessarily inconsistent with its doctrine of ‘credible minimum deterrence’, but “the pursuit of ballistic missile defence shifts the nuclear trajectory towards implementing full spectrum offence / defence dominance”. It was also

321 [Q 81](#)

322 [Q 107](#)

323 [Q 107](#)

324 [Q 81](#)

325 Pierre Tran, ‘Former procurement official joins MBDA as France eyes new munitions’, *Defense News* (8 December 2017): <https://www.defensenews.com/industry/2017/12/08/former-procurement-official-joins-mbda-as-france-eyes-new-munitions/> [accessed 3 April 2019]

326 Written evidence from PAX ([NPT0018](#))

327 Pierre Tran, ‘Former procurement official joins MBDA as France eyes new munitions’ *Defense News* (8 December 2017): <https://www.defensenews.com/industry/2017/12/08/former-procurement-official-joins-mbda-as-france-eyes-new-munitions/> [accessed 3 April 2019]

328 Henry Samuel, ‘France to boost defence spending in ‘unprecedented’ move to meet Nato commitments’, *The Telegraph*: <https://www.telegraph.co.uk/news/2018/02/08/france-boost-defence-spending-unprecedented-move-meet-nato-commitments/> [accessed 14 March 2019]

329 Written evidence from A. Vinod Kumar ([NPT0015](#))

330 [Q 40](#)

331 Written evidence from A. Vinod Kumar ([NPT0015](#))

developing “nuclear tipped short-range ballistic missiles and pursuing Multiple Independently Targetable Reentry Vehicles”. He thought that “instead of reducing nuclear force levels” India was developing “a full matrix of strategic and defensive capabilities” which undermined the drive towards nuclear disarmament. Pakistan and China were “likely to follow suit”.³³²

Pakistan

193. Mr Kumar said Pakistan was also contributing to the trend of global rearmament. It had “advanced from an initial capability of existential deterrence to full-spectrum deterrence”.³³³ Dr Paul said it had “recently carried out the flight test of the Babur-3, its new submarine-launched cruise missile”. This enabled it “to develop a sea-based nuclear deterrent in response to India’s emerging SSBN capability”. It was also “a dual-capable system and thus highly destabilising”.³³⁴

Israel

194. As a result of its policy of nuclear opacity, details of Israel’s modernisation programme are not known.

North Korea

195. The North Korean nuclear programme is considered in Chapter 4.
196. **Nuclear modernisation is a necessary part of the maintenance of nuclear weapons and can make these weapons more secure. However, the programmes of many nuclear possessor states go well beyond what can properly be described as modernisation, introducing new capabilities and potentially increasing nuclear risk. We are particularly concerned about new developments in the field of tactical nuclear weapons.**
197. **The UK’s nuclear modernisation programme, although not without its critics, focuses on the renewal of its existing capabilities for a minimum credible deterrent. The Government should encourage other nuclear-armed states to exercise restraint in their modernisation programmes and to avoid expanding their nuclear capabilities.**

A Middle East Weapons of Mass Destruction-Free Zone

Five nuclear weapon-free zones have been recognised by the UN:

- Latin America and the Caribbean (the Treaty of Tlatelolco, negotiated in 1967);
- the South Pacific (the Treaty of Rarotonga, negotiated in 1985);
- the Association of Southeast Asian Nations (the Treaty of Bangkok, negotiated in 1995);
- Africa (the Treaty of Pelindaba, negotiated in 1996); and

332 Written evidence from Dr Rishi Paul ([NPT0024](#))

333 Written evidence from A. Vinod Kumar ([NPT0015](#))

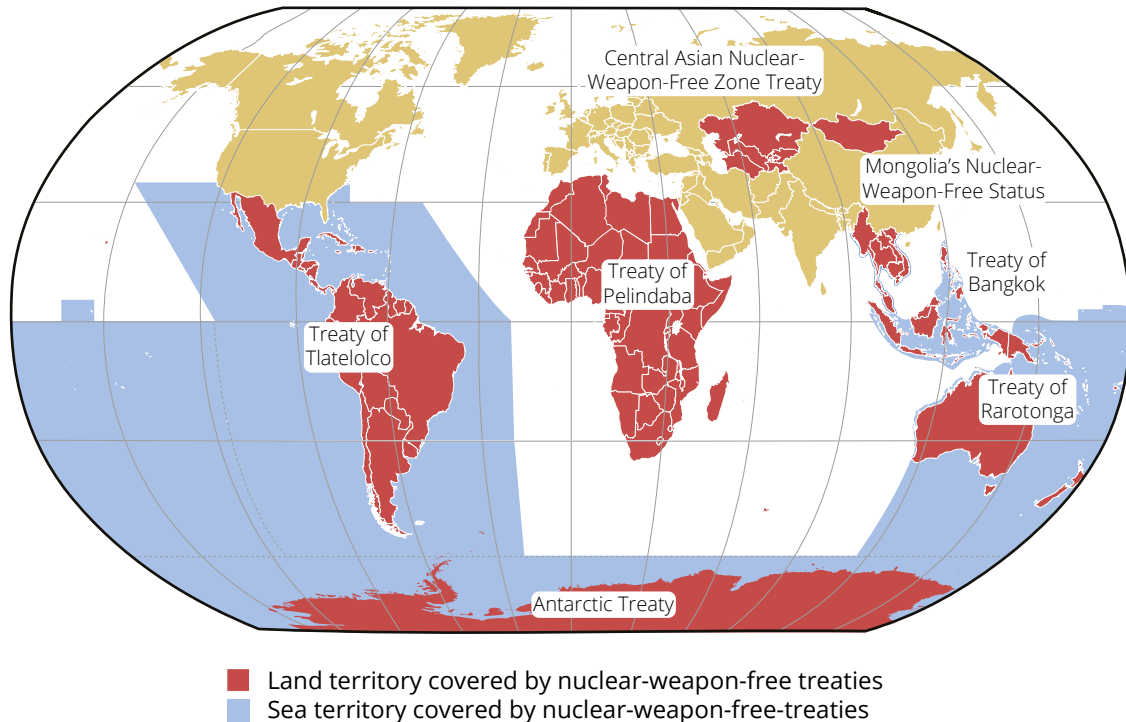
334 Written evidence from Dr Rishi Paul ([NPT0024](#))

- Central Asia (the Treaty of Semipalatinsk, negotiated in 2006).³³⁵

Mongolia is also a UN-recognised nuclear-free zone. Nuclear weapon-free areas have also been established in the Antarctic, the sea-bed and outer space.³³⁶

198. Figure 4 shows the existing nuclear weapon-free zones.

Figure 4: Nuclear-weapon-free zones



Source: UN Office for Disarmament Affairs, 'Nuclear-Weapon-Free Zones': <https://www.un.org/disarmament/wmd/nuclear/nwzf/> [accessed 28 March 2019]

The history of a Middle East Weapons of Mass Destruction-Free Zone

199. The only nuclear possessor state in the Middle East is Israel, which has not acknowledged its nuclear arsenal and is not a signatory to the NPT. All other countries in the region are States Parties to the NPT.
200. The development of a Middle East Weapons of Mass Destruction-Free Zone—covering all weapons of mass destruction and their means of delivery—was first formally proposed in a resolution submitted to the UN General Assembly by Iran and Egypt in 1974.³³⁷ Further General Assembly resolutions supporting the establishment of a Middle East WMD-Free Zone were adopted by consensus.³³⁸

335 IAEA, 'Nuclear-Weapon-Free-Zones': <https://www.iaea.org/topics/nuclear-weapon-free-zones> [accessed 3 April 2019]

336 Written evidence from the Campaign for Nuclear Disarmament (NPT0022)

337 Written evidence from Dr Hassan Elbahtimy (NPT0032)

338 UN, '1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons Final Document' (1995): <http://www.un.org/Depts/ddar/nptconf/2142.htm> [accessed 3 April 2019]

201. At the 1995 NPT RevCon the Arab States Parties to the NPT, led by Egypt proposed a resolution on the issue.³³⁹ The proposed indefinite extension of the NPT that year³⁴⁰ gave these states maximum leverage, and there was “relentless campaigning by Arab states”.³⁴¹ In return for their support for the indefinite extension of the NPT, the Final Document of the RevCon stated:
- “The development of nuclear-weapon-free zones, especially in regions of tension, such as in the Middle East, as well as the establishment of zones free of all weapons of mass destruction, should be encouraged as a matter of priority, taking into account the specific characteristics of each region. The establishment of additional nuclear-weapon-free zones by the time of the Review Conference in the year 2000 would be welcome.”³⁴²
202. A resolution on the Middle East was adopted, which stated that the Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons: “Endorses the aims and objectives of the Middle East peace process and recognizes that efforts in this regard, as well as other efforts, contribute to, inter alia, a Middle East zone free of nuclear weapons as well as other weapons of mass destruction”.³⁴³
203. Dr Elbahtimy said this agreement was “one of the key reasons why it was possible to indefinitely extend the NPT in 1995”.³⁴⁴ Since 1995 the issue had played “an important, and sometimes overbearing, role during the NPT review process”.³⁴⁵
204. At the 2010 RevCon there was “an idea of convening a conference in 2012, to be attended by all states in the Middle East”.³⁴⁶ Dr Grossi said that the UN’s facilitator had “conducted a very thorough process of consultations around the region, but unfortunately no positive outcome came out of that”.³⁴⁷ In 2015, this was a significant factor in the failure to agree a Consensus Final Document at the NPT RevCon.³⁴⁸

339 Written evidence from Dr Rebecca Johnson ([NPT0034](#)) The Middle East peace process began with the Madrid Conference of 1991 and is a set of bilateral and multilateral negotiations between Israel and its Arab neighbours, addressing several concerns including regional security. The 1995 Resolution on the Middle East establishes the link between the Middle East peace process and the establishment of a WMD-free zone. Tomisha Bino, ‘The Pursuit of a WMD-Free Zone in the Middle East’, *Chatham House* (July 2017): <https://www.chathamhouse.org/sites/default/files/publications/research/2017-07-27-WMDFreeZone.pdf> [accessed 3 April]

340 The NPT could have been extended for a number of years, rather than indefinitely.

341 Written evidence from Dr Hassan Elbahtimy ([NPT0032](#))

342 UN, ‘1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons Final Document’ (1995): <http://www.un.org/Depts/ddar/nptconf/2142.htm> [accessed 3 April 2019]

343 UN, ‘1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons Final Document’ (1995): <http://www.un.org/Depts/ddar/nptconf/2142.htm> [accessed 3 April 2019]

344 [Q 89](#)

345 Written evidence from Dr Hassan Elbahtimy ([NPT0032](#))

346 Written evidence from Dr Hassan Elbahtimy ([NPT0032](#))

347 [Q 136](#)

348 Written evidence from Dr Hassan Elbahtimy ([NPT0032](#)) Dr Johnson said the “formal reason” for this was “that Canada, the UK and the United States blocked consensus over the wording of a paragraph on the organization and timeline for another proposed conference to rid the Middle East of nuclear and other WMD”. Written evidence from Dr Rebecca Johnson ([NPT0034](#))

The reasons for failure to agree a WMD-Free Zone

205. BASIC said that “many Israelis believe their security depends upon a nuclear ‘Samson option’ of massive retaliation against their neighbours”, which they were “not yet prepared to give up.”³⁴⁹ The US’s “positions ... protect Israel’s resistance to being put on the spot about the Middle East zone”.³⁵⁰
206. Egypt and the other Arab states saw “a deep injustice in current arrangements” and were “suspicious of never-ending negotiations”, while “Iranians carry suspicion of external powers and are caught in proxy conflicts with their Gulf neighbours”.³⁵¹ Dr Elbahtimy said that both the Arab states and Iran felt there were “double standards” in “the way Israel’s nuclear programme is handled”.³⁵²
207. BASIC said the failure to progress had “poisoned the well”.³⁵³ Mr Kmentt said this—alongside dissatisfaction with the pace of disarmament—had led “to a crisis of confidence and trust in the NPT.” The advantage to Middle Eastern states of maintaining the NPT had “been there until now”, but it was “becoming fractious”. If the NPT collapsed, “a nuclear arms race in the region” would be likely. There were “already several countries”, including Turkey and Saudi Arabia, where nuclear weapons were “being more or less openly discussed”. Were that “trend to materialise then the impact on security, both regional and international, would be very negative.” The NPT consensus “still holds” because of this risk; it was the reason for “the support of the Middle Eastern countries for the tough line against the Iranian nuclear programme”.³⁵⁴
208. Ms Ballestas de Dietrich said that as biological and chemical weapons have “already been banned”,³⁵⁵ and Israel is the only nuclear possessor state in the region, “the issue at stake is not about a WMD free zone, but ultimately about disarming Israel.”³⁵⁶ There were “no prospects in the foreseeable future for Israel to give up the nuclear weapons it does not even admit to have.” “Credible efforts” would therefore need “to address the threats that have led Israel to develop nuclear weapons in the first place” and “bring Egypt, Iran and Israel to the table (any table) to begin discussions on their respective security concerns.”³⁵⁷
209. Alexandra Bell, Senior Policy Director, Center for Arms Control and Non-Proliferation, and BASIC thought there were confidence-building

349 Written evidence from BASIC ([NPT0020](#))

350 [Q 61](#)

351 Written evidence from BASIC ([NPT0020](#))

352 Written evidence from Dr Hassan Elbahtimy ([NPT0032](#))

353 Written evidence from BASIC ([NPT0020](#))

354 [Q 89](#)

355 Via the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (the Chemical Weapons Convention) and the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction About Biological Weapons (the Biological Weapons Convention).

356 Written evidence from Diana Ballestas de Dietrich ([NPT0027](#)). Dr Elbahtimy said that while nuclear weapons were “the key hurdle”, “other weapon systems can also pose significant problems”. The use of chemical weapons in Syria “has highlighted the regional gaps in membership of the Chemical Weapons Convention”—Egypt, Israel and South Sudan are outside it. Israeli and Iranian missile programmes also “pose a challenge to a region-wide curtailment of missile capabilities”. A number of regional states have not joined the Biological and Toxin Weapons Convention, “notably Egypt, Israel and Syria”. Written evidence from Dr Hassan Elbahtimy ([NPT0032](#))

357 Written evidence from Diana Ballestas de Dietrich ([NPT0027](#))

steps that could be explored. Ms Bell suggested a testing moratorium in the region, which “should not be too hard, because none of [the states] has plans to test nuclear weapons”, then getting Israel, Iran and Egypt to ratify the Comprehensive Nuclear-Test-Ban Treaty (discussed in Chapter 4). These measures could “salvage the consensus points that already exist”.³⁵⁸ Ms Nakamitsu suggested building “a number of informal dialogue mechanisms” around the formal UN mandated conference, to “encourage all states in the region to be engaged in such a process.”³⁵⁹

Towards a conference in 2019?

210. Dr Elbahtimy said that in 2018 the Arab states had sponsored a UN General Assembly resolution that “asked the UN to convene a weeklong WMDFZ Conference in 2019”. This had been supported by 103 countries, with 71 abstentions and three votes against, from the US, Israel, and Micronesia.³⁶⁰ Ms Nakamitsu said the UN Secretary-General was working on the conference, and there had been “quite a lot of substantive discussion”. She thought it would probably be “a very difficult process”.³⁶¹
211. Dr Grossi said the conference would be held in New York “probably in November or by the end of” 2019. He did not know what the outcome would be, but welcomed this “new, added path to this goal to which we all subscribed”.³⁶²
212. He said questions remained over whether the US, Israel, the UK and other P5 states would participate.³⁶³ Ms Bell said some countries were “saying they should go ahead and have a conference ... without the consent and buy-in of Israel”. The US thought this “a terrible idea—this is a regional problem, so all members of the region should be brought in”.³⁶⁴ Ms Price said that “at the moment” Israel had not agreed to attend, which the UK thought was “a fatal flaw”.³⁶⁵
213. The FCO said the UK remained “fully committed to the 1995 Resolution”. It was “prepared to actively support and facilitate renewed regional dialogue aimed at bridging the differing views in the region on arrangements for a conference that is freely arrived at by all states in the region as set out in the NPT 2010 Action Plan.”³⁶⁶ Mr Baklitskiy said that the UK, as a co-sponsor of the 1995 resolution, “should try to engage the Arab states as well as Iran and Israel in the talks”.³⁶⁷
214. **The issue of a Weapons of Mass Destruction-Free Zone in the Middle East has become one of the most contentious for successive Non-Proliferation Treaty Review Conferences. The UK should continue to support work towards the forthcoming UN conference on a Middle East Weapons of Mass Destruction-Free Zone, and should encourage Israel to participate.**

358 [Q 118](#)

359 [Q 4](#)

360 Written evidence from Dr Hassan Elbahtimy ([NPT0032](#))

361 [Q 4](#)

362 [Q 136](#)

363 [Q 136](#)

364 [Q 118](#)

365 [Q 154](#)

366 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

367 Written evidence from Andrey Baklitskiy ([NPT0046](#))

215. **The Government should also support dialogue and confidence-building steps in the Middle East—such as a regional testing moratorium—with the aim of increasing trust and improving the security environment. We believe that any increase in dialogue and reduction in tensions in the Middle East would be welcome and could make a contribution to the overall success of the 2020 Nuclear Non-Proliferation Treaty Review Conference.**

Dissatisfaction of Non-Nuclear Weapon States

216. Witnesses said that, as a result of the Nuclear Weapons States not having fulfilled their disarmament obligations, significant dissatisfaction had arisen among Non-Nuclear Weapons States.³⁶⁸ When they had agreed to an indefinite extension of the NPT, Non-Nuclear Weapons States had not accepted indefinite possession of nuclear arsenals, or perpetual modernisation.³⁶⁹
217. Many witnesses pointed to the inherent lack of balance between the five Nuclear Weapon States and the Non-Nuclear Weapon States as a problem.³⁷⁰ This created “a sense of futility on the part of the Non-Nuclear Weapon States over reaching any meaningful progress”, which led to “more confrontational and obstructive behaviours”—such as blocking Final Documents at RevCons.³⁷¹ The Humanitarian Impacts initiative grew out of this frustration.

The Humanitarian Impacts initiative

218. Dr Rebecca Johnson, Executive Director, Acronym Institute for Disarmament Diplomacy, said that from 2005 “civil society had been encouraging scientists to update studies on the risks, impacts and consequences of nuclear weapons use, deployments and proliferation.”³⁷²
219. Dr Tzinieris said that the resulting Humanitarian Impacts initiative “was a turning point for global nuclear diplomacy”. Evidence had been “employed to show the long-standing impacts on the environment, climate and food security”. This was “a new way of framing the debates, which had historically been dominated by ‘techno-strategic’ discourses focused on deterrence theories”.³⁷³ An article in the *Bulletin of the Atomic Scientists* on these data noted that while “improvements in climate modelling have provided greater insights into the long-term consequences of nuclear weapons use”, the studies contained “significant assumptions and uncertainties”.³⁷⁴
220. Dr Johnson said that at the 2010 RevCon for the first time there was discussion of the issues of “international humanitarian law, the use of nuclear weapons and ... the need to negotiate further disarmament instruments” in the Final Document.³⁷⁵ Following this, international conferences on the

368 [Q 53](#) (Lord Browne of Ladyton) and written evidence from Dr Brad Roberts ([NPT0029](#))

369 Written evidence from Dr Rebecca Johnson ([NPT0034](#))

370 Written evidence from A. Vinod Kumar ([NPT0015](#)) and written evidence from Dr Sarah Tzinieris ([NPT0032](#))

371 Written evidence from Dr Sarah Tzinieris ([NPT0032](#))

372 Written evidence from Dr Rebecca Johnson ([NPT0034](#))

373 Written evidence from Dr Sarah Tzinieris ([NPT0032](#)) These predictions were modelled on a conflict between India and Pakistan using 100 Hiroshima-sized warheads. [Q 104](#) (Dr Ritchie)

374 William Ossoff, ‘Climate science, nuclear strategy, and the humanitarian impacts debate’, *Bulletin of the Atomic Scientists* (10 August 2016): <https://thebulletin.org/2016/08/climate-science-nuclear-strategy-and-the-humanitarian-impacts-debate/> [accessed 3 April 2019]

375 [Q 57](#)

‘humanitarian impacts of nuclear weapons’ were hosted by Norway, Mexico and Austria in 2013 and 2014.³⁷⁶ Ms Nakamitsu said there had been “very strong motivation on the part of Non-Nuclear Weapon States to call for an understanding of the catastrophic humanitarian consequences of nuclear weapons”.³⁷⁷

221. All countries were invited to participate in these conferences.³⁷⁸ The UK attended the final conference, in Vienna in December 2014.³⁷⁹
222. The conferences were the precursor to the drafting of a resolution, adopted by the UN General Assembly on 23 December 2016, committing “to negotiate a legally binding instrument to prohibit nuclear weapons, leading towards their total elimination”.³⁸⁰

The Treaty on the Prohibition of Nuclear Weapons (the Ban Treaty)

Box 5: The Treaty on the Prohibition of Nuclear Weapons (the Ban Treaty)

The Treaty on the Prohibition of Nuclear Weapons (TPNW) includes a comprehensive set of prohibitions on participating in any nuclear weapon activities. These include undertakings not to:

- develop;
- test;
- produce;
- acquire;
- possess;
- stockpile;
- use; or
- threaten to use nuclear weapons.

The treaty prohibits the deployment of nuclear weapons on national territory, and the provision of assistance to any state in the conduct of prohibited activities.

States Parties will be obliged to prevent and suppress any activity prohibited under the treaty undertaken by persons or on territory under its jurisdiction or control.

It also obliges States Parties to provide adequate assistance to individuals affected by the use or testing of nuclear weapons, as well as to take necessary and appropriate measure of environmental remediation in areas under its jurisdiction or control contaminated as a result of activities related to the testing or use of nuclear weapons.

376 Written evidence from Dr Rebecca Johnson ([NPT0034](#))

377 [Q 7](#)

378 [Q 105](#) (Beatrice Fihn)

379 [Q 32](#) (Paul Ingram)

380 UN General Assembly, ‘Resolution adopted by the General Assembly on 23 December 2016’: (11 January 2017), p4: <https://undocs.org/A/RES/71/258> [accessed 3 April 2019]

It was adopted by a vote of 122 states in favour (with one vote against and one abstention) in July 2017.³⁸¹ It was opened for signature in September 2017. It will enter into force 90 days after the fiftieth instrument of ratification, acceptance, approval or accession has been deposited.

Source: UN Office for Disarmament Affairs, 'Treaty on the Prohibition of Nuclear Weapons—Treaty overview': <https://www.un.org/disarmament/wmd/nuclear/tpnw/> [accessed 3 April 2019]

223. The Ban Treaty opened for signature in September 2017 but is not yet in force.
224. Mr Kmentt said the Ban Treaty's "comprehensive prohibition" on nuclear weapons was "something that the NPT does not offer". The "aspiration" was that this "should become universal at some stage".³⁸² Ms Fihn said this was "the main difference" between the Ban Treaty and the NPT. The former "rejects the legitimacy of these weapons, whereas the NPT, while trying to achieve disarmament, still acknowledges that these weapons are important for security."³⁸³ The Ban Treaty was "incompatible with theories of nuclear deterrence".³⁸⁴
225. Alternative views on the role of deterrence and the right conditions for disarmament are discussed earlier in this chapter, in the assessment of the NPT's disarmament pillar. Commenting specifically on the Ban Treaty, Mr Miller said the Ban Treaty was based on a misapprehension. It "conceives of nuclear weapons as the over-riding problem to resolve rather than recognising that preventing war among the Great Powers is the paramount security problem of our era."³⁸⁵ Dr Roberts said that "some NGOs continue to advocate ... disarmament steps in ways that appear not to account for the renewal of major power rivalry and the emergence of new nuclear dangers, primarily in Asia".³⁸⁶ The criticism that the Ban Treaty does not take account of the security conditions facing nuclear possessor states was also made by the FCO and Ms Cox.³⁸⁷
226. Ms Nakamitsu said the Ban Treaty was "a demonstration of the frustration on the part of Non-Nuclear Weapon States ... that the previous commitments on nuclear disarmament and the implementation of Article 6 of the NPT have stalled".³⁸⁸
227. The Nuclear Weapon States have made clear their opposition to the Ban Treaty; collective statements by the P5 are discussed later in this chapter. NATO issued a statement in September 2017 that "Allies committed to advancing security through deterrence, defence, disarmament, non-proliferation and arms control, we, the Allied nations, cannot support this

381 The state voting against was The Netherlands; Singapore abstained. UN, 'Conference to Negotiate Legally Binding Instrument Banning Nuclear Weapons Adopts Treaty by 122 Votes in Favour, 1 against, 1 Abstention': <https://www.un.org/press/en/2017/dc3723.doc.htm> [accessed 15 March 2019]

382 [Q 92](#)

383 [Q 105](#)

384 Written evidence from Dr Sarah Tzinieris ([NPT0032](#))

385 Written evidence from Franklin Miller ([NPT0041](#))

386 Written evidence from Dr Brad Robert ([NPT0029](#))

387 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#)) and [Q 99](#) (Jessica Cox)

388 [Q 3](#)

treaty. Therefore, there will be no change in the legal obligations on our countries with respect to nuclear weapons.”³⁸⁹

The negotiation of the Ban Treaty

228. Dr Johnson said that the negotiations had been informed by a “multilateral humanitarian-based legal process” including the international conferences on the humanitarian impacts (discussed above) and two UN “open-ended working groups” established by the UN General Assembly. There had been “open discussions” at the UN General Assembly, with participation by “up to 140 states”.³⁹⁰
229. Mr Koenders however thought the negotiation of the Ban Treaty had been “sloppy”. They had been conducted at an unnecessary speed, with the result that “A lot of the legal terms are simply not well defined”, which was a problem because it was important to be “very precise” when discussing issues such as “verification, nuclear umbrellas, responsibilities, testing”.³⁹¹

Assessment of the Ban Treaty

Impact on the NPT regime

230. Mr Kmentt said that the NPT’s “obligation under Article 6” was “a collective responsibility for the entire membership and not just for the Nuclear Weapon States.”³⁹² The negotiation of the Ban Treaty was “the only way to demonstrate that we are deeply unsatisfied with the status quo and deeply concerned about how the arms control regime and the nuclear disarmament dimension in particular are moving.”³⁹³ “Most of all”, the treaty was “a manifestation of the role and responsibility of the Non-Nuclear Weapon States to discharge their obligation”.³⁹⁴
231. Some witnesses suggested that the Ban Treaty undermined the NPT. Dr Sultan said it was “likely” to do so, because it brought “duplicate obligations upon the signatory states” and complicated the global non-proliferation regime.³⁹⁵ The FCO said it risked “undermining international non-proliferation work and the NPT”,³⁹⁶ a reason given by Ms Cox for why none of the NATO Allies had signed or ratified the treaty.³⁹⁷

389 NATO, ‘North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons’, (20 September 2017): https://www.nato.int/cps/ua/natohq/news_146954.htm [accessed 3 April 2019] The Netherlands took a different approach to other NATO Allies. The government of the Netherlands participated in the Humanitarian Impacts conferences and in the negotiation of the Ban Treaty, despite “virulent” opposition from other members of NATO. It then voted against it. [Q 144](#) and [Q 148](#) (Bert Koenders) The government of the Netherlands stated that it was “incompatible with our NATO obligations, that contains inadequate verification provisions or that undermines the Non-Proliferation Treaty.” Kingdom of the Netherlands, ‘Explanation of vote of the Netherlands on text of Nuclear Ban Treaty’ (7 July 2017): <https://www.permanentrepresentations.nl/latest/news/2017/07/07/explanation-of-vote-of-ambassador-lise-gregoire-on-the-draft-text-of-the-nuclear-ban-treaty> [accessed 3 April 2019]

390 Written evidence from Dr Rebecca Johnson ([NPT0034](#))

391 [Q 148](#)

392 [Q 92](#)

393 [Q 89](#)

394 [Q 89](#) also see [Q 62](#) (Dr Johnson). [Q 105](#) Dr Ritchie said it was an initiative “principally but not exclusively from the global south”.

395 Written evidence from Dr Adil Sultan Muhammad ([NPT0032](#))

396 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

397 [Q 99](#) (Jessica Cox) and written evidence from Jessica Cox ([NPT0039](#))

232. Mr Plant said that the “crack in the wall ... if it comes; I do not think it is guaranteed to” would occur if a state decided “that it would prefer to discharge its non-proliferation obligations under the Treaty of Prohibition of Nuclear Weapons than it would under the Non-Proliferation Treaty.”³⁹⁸ Dr Roberts was concerned that the Ban Treaty’s standards would “give some states the political cover for abandoning their NPT obligations.”³⁹⁹ The Ban Treaty’s safeguards and verification measures are discussed below.
233. Dr Tzinieris said the P5 had at different times asserted that it would “‘undermine’, ‘weaken’ and ‘damage’ the NPT”.⁴⁰⁰ Ms Price described the Ban Treaty as “a rival”,⁴⁰¹ which Mr Schulte and Professor Wheeler said could reduce the NPT’s “universality and moral authority”.⁴⁰² Ms Price said that it had “a clause in it to say that it is the primary instrument for achieving disarmament in the world. We disagree with that; we think it is the NPT. If you introduce a competition or hierarchy of treaties, you have to believe that one is higher than the other; you have to make a choice.”⁴⁰³
234. Mr Kmentt said “the assertion that the Treaty on the Prohibition of Nuclear Weapons in any way damages or undermines the NPT is just plain false”. It was “born out of trying to create a narrative that the Ban Treaty is somehow bad”.⁴⁰⁴ A number of witnesses including Mr Heisbourg, Mr Ingram and Ms Fihn said the Ban Treaty did not undermine the NPT.⁴⁰⁵ Dr Johnson said the Ban Treaty aimed “to amplify, clarify and strengthen the NPT itself by clarifying what needs to be done”.⁴⁰⁶ It was “a pathway for the implementation of Article 6”.⁴⁰⁷ Article 36 said it had been “negotiated to be legally compatible with other nuclear non-proliferation and disarmament treaties, and as an ‘effective measure’ towards fulfilling Article 6 of the NPT”. The role of the NPT in non-proliferation was “acknowledged in the TPNW’s preamble”.⁴⁰⁸
235. Some witnesses said the Ban Treaty had created polarisation. Dr Ritchie disagreed: “This is not a matter of creating polarisation; it is a symptom of it.”⁴⁰⁹ Some witnesses said that the pressure that resulted from polarisation on nuclear possessor states could be helpful.⁴¹⁰ “Historically”, progress had “been made on arm treaties where stakes have been high”.⁴¹¹

Normative impact

236. Ms Fihn said it was necessary “to do what we have done with biological and chemical weapons: reject them, declare them to be inhumane and stigmatise

398 [Q 47](#)

399 Written evidence from Dr Brad Roberts ([NPT0029](#))

400 Written evidence from Dr Sarah Tzinieris ([NPT0032](#))

401 [Q 24](#)

402 Written evidence from Paul Schulte and Professor Nicholas J. Wheeler ([NPT0030](#))

403 [Q 159](#)

404 [Q 92](#)

405 [Q 93](#) (François Heisbourg); [Q 32](#) (Paul Ingram); [Q 105](#) (Beatrice Fihn); written evidence from Medact ([NPT0014](#)), written evidence from Harvard Law School’s International Human Rights Clinic ([NPT0009](#)) and written evidence from Christopher Evans ([NPT0006](#))

406 [Q 62](#)

407 [Q 92](#) (Alexander Kmentt)

408 Written evidence from Article 36 ([NPT0025](#))

409 [Q 105](#)

410 [Q 7](#) (Izumi Nakamitsu), written evidence from Dr Tong Zhao ([NPT0038](#)) and written evidence from Dr Sarah Tzinieris ([NPT0032](#))

411 Written evidence from Dr Sarah Tzinieris ([NPT0038](#))

them. We must make them shameful and dishonourable”.⁴¹² Article 36 said experience showed that “building stigma over time is crucial to marginalising” the role of these weapons.⁴¹³ Dr Ritchie said this represented “an effort to create the conditions for nuclear disarmament to happen”.⁴¹⁴

237. Article 36 said the Ban Treaty could also “have a significant impact on the private financing of nuclear weapons producers”. The “new international legal framework” of the treaty was “likely to make investors consider these companies to be an increasingly risky proposition”.⁴¹⁵ The Northern Friends Peace Board said the treaty had caused “more than 50 financial institutions to divest from nuclear weapons” to date.⁴¹⁶
238. The Ban Treaty has a potential implication for the development of customary international law, defined by the International Court of Justice as “evidence of a general practice accepted as law”, which “evolves through ‘state practice’—the widespread repetition of acts, or declaration of the legality of acts, by a significant number of states and the absence of their rejection by a significant number of states”.⁴¹⁷ Some witnesses noted that the explicit and repeated rejection of the treaty by Nuclear Weapon States represents an attempt to prevent this.⁴¹⁸
239. Other witnesses were sceptical about the impact of the treaty. Ms Price said that “just wishing nuclear disarmament, which I think the nuclear Ban Treaty tries to do, will not make it happen.”⁴¹⁹ Rear Admiral Gower said the Ban Treaty sought to “shame” nuclear possessor states “through a legal statute to which they have not signed up”;⁴²⁰ it was “toothless”.⁴²¹ Mr Heisbourg compared it to “a temperance union that does not manage to convince any alcoholics to give up the booze”.⁴²²
240. Mr Schulte and Professor Wheeler said it was “not realistic that signatory states comprising under 40 per cent of the world’s population, and even less of its production and communications capability, will be effectively able to ‘stigmatise’ the remainder who include enormous nuclear states such as China, Russia, India, and the US and all its allies.”⁴²³ Rear Admiral Gower drew a distinction between the possible impact of the Ban Treaty on different states: it would “shame only America, France and the UK, possibly”; it was “unlikely to shame the other six countries that have nuclear weapons”, a point also made by Dr Roberts.⁴²⁴

412 [Q 105](#); also see [Q 106](#) (Dr Ritchie) and written evidence from Dr Sarah Tzinieris ([NPT0032](#)). These are outlawed in the Convention on Chemical Weapons and the Biological Weapons Convention.

413 Written evidence from Article 36 ([NPT0025](#))

414 [Q 108](#)

415 Written evidence from Article 36 ([NPT0025](#)). This point was also made in written evidence from PAX ([NPT0018](#)) and written evidence from the Baptist Union of Great Britain, the Church of Scotland, the Methodist Church in Britain and the United Reformed Church ([NPT0013](#))

416 Written evidence from the Northern Friends Peace Board ([NPT0019](#))

417 Written evidence from United Nations Association-UK ([NPT0028](#))

418 Written evidence from BASIC ([NPT0020](#)) and [Q 33](#) (Shatabhisha Shetty)

419 [Q 18](#)

420 [Q 80](#)

421 [Q 79](#)

422 [Q 93](#)

423 Written evidence from Paul Schulte and Professor Nicholas J. Wheeler ([NPT0030](#))

424 [Q 80](#) and written evidence from Dr Brad Roberts ([NPT0029](#))

*Safeguards***Box 6: Safeguards in the Ban Treaty**

The Ban Treaty obliges each State Party to “at a minimum, maintain its International Atomic Energy Agency safeguards obligations in force at the time of entry into force of this Treaty”. A State Party that has not concluded an IAEA safeguards agreement is obliged to agree with the IAEA to “bring into force a comprehensive safeguards agreement (INFCIRC/153 (Corrected))”.

Source: UN General Assembly, *Treaty on the Prohibition of Nuclear Weapons*: <http://undocs.org/A/CONF.229/2017/8> [accessed on 15 March 2019]

241. Ms Price was critical of the Ban Treaty’s safeguards regime. She said it mandated the IAEA comprehensive safeguards agreement, which “we believe is a lesser standard than ... the gold standard”—the Additional Protocol (see Box 3).⁴²⁵
242. Ms Cox said the Ban Treaty did “not ... account for the full range of safeguards and the long history of the body of work that has been done under the NPT”. It gave some countries “an ‘out’ for not tackling the hard challenges”.⁴²⁶ The UK thought this was “dangerous”—“we want to push forward to higher standards”.⁴²⁷
243. Article 36 said this was a “common criticism” of the Ban Treaty, which was incorrect.⁴²⁸ The treaty “legally requires parties to maintain the safeguards agreements they have”⁴²⁹ (see Box 6). Mr Kmentt said that for the majority of states, this was the Additional Protocol. This meant that the Ban Treaty set a stronger standard than the NPT,⁴³⁰ which did not require or enforce the Additional Protocol.⁴³¹
244. Dr Tzinieris said those states which did not have safeguards in place when they signed the Ban Treaty were obliged to “bring into force the Comprehensive Safeguards Agreement (INFCIRC/153 Corrected).” This ensured that “states can upgrade their safeguard standards by adopting an Additional Protocol as well as accommodate any higher standards that might be available”. Proponents of the Ban Treaty therefore argued that it “goes further than the NPT, which only obligates state parties to ‘accept safeguards’ in an unspecified agreement with the IAEA”.⁴³²

Verification

245. Ms Price said that the Ban Treaty had “a very weak verification regime”;⁴³³ Mr Schulte and Professor Wheeler said it compared unfavourably with

425 [Q 25](#) and [Q 159](#)

426 [Q 99](#)

427 [Q 25](#)

428 Written evidence from Article 36 ([NPT0025](#))

429 Written evidence from Article 36 ([NPT0025](#))

430 Written evidence from Article 36 ([NPT0025](#)) and written evidence from Alexander Kmentt ([NPT0047](#))

431 Written evidence from Dr Sarah Tzinieris ([NPT0032](#))

432 Written evidence from Dr Sarah Tzinieris ([NPT0032](#)) The same points were made by Mr Kmentt and ICAN. Written evidence from ICAN ([NPT0012](#)) and written evidence from Alexander Kmentt ([NPT0047](#))

433 [Q 25](#)

the NPT's provisions.⁴³⁴ It “would not give anybody the assurances that disarmament had happened”.⁴³⁵

246. Mr Plant said that if states discharged their obligations to both the NPT and the Ban Treaty, the inconsistency in standards would not matter. However, “if states are forum shopping, the verification requirements on non-proliferation ... are much less stringent than they are under the NPT. That is a step backwards for disarmament and non-proliferation.”⁴³⁶
247. Dr Tzinieris acknowledged that the Ban Treaty “provides only an outline” on verification, “with the details to be dealt with by an unspecified ‘competent national authority’”. This “lack of detail” was a recognition that “disarmament was unlikely to take place immediately”.⁴³⁷
248. Mr Kmentt rejected the idea that it created “a loophole for cheating on nuclear disarmament”.⁴³⁸ The “absence of specific verification provisions was only logical”, because the countries with the “most expertise on verification” were nuclear possessor states, which did not participate in the negotiations. The Ban Treaty provided “space (e.g. through a future verification protocol) to include the input of adhering nuclear armed states to develop concrete verification measures, once they join the treaty.”⁴³⁹ Dr Johnson said in future there would be likely to be new technologies which could be used in this regard.⁴⁴⁰

Creating discussion and focus

249. Mr Kmentt said the treaty “tries at least to change the discourse and the unsatisfactory dynamic that we have seen ... since the mid-1990s.”⁴⁴¹ Ms Nakamitsu said “the discussions on nuclear weapons, in many European countries in particular, have become more active.” The UN had “started to receive many parliamentary delegations that are studying the new treaty”.⁴⁴² The Christian Campaign for Nuclear Disarmament said the treaty had also “reinvigorate[d] civil society in the campaign against nuclear weapons and for total disarmament”.⁴⁴³

The UK's approach to the Ban Treaty

250. Ms Price said that the UK “would not have been able to veto” the Ban Treaty,⁴⁴⁴ and “had no intention of signing it, so we did not participate.”⁴⁴⁵ The Minister said the UK did “not think the moment is there to try to abolish nuclear weapons altogether”, and thought the Ban Treaty “would compete with the NPT in a way that would not deliver as good an outcome”.⁴⁴⁶

434 Written evidence from Paul Schulte and Professor Nicholas J. Wheeler ([NPT0030](#))

435 [Q 159](#) (Sarah Price)

436 [Q 47](#)

437 Written evidence from Dr Sarah Tzinieris ([NPT0032](#))

438 Written evidence from Alexander Kmentt ([NPT0047](#))

439 Written evidence from Alexander Kmentt ([NPT0047](#))

440 Written evidence from Dr Rebecca Johnson ([NPT0034](#))

441 [Q 92](#)

442 [Q 8](#)

443 Written evidence from Christian Campaign for Nuclear Disarmament ([NPT0011](#))

444 It was negotiated in the General Assembly where no veto is possible.

445 [Q 24](#)

446 [Q 159](#)

251. Ms Price said the UK had “strongly made clear ... our concerns about its shortcomings” and “engaged with those proponents”.⁴⁴⁷ The Minister said the UK had wanted “to be frank and honest and not pretend that we support something or that it will be effective when we think otherwise”.⁴⁴⁸

UK participation in conferences and negotiations

252. UNA-UK said the UK’s approach to the Ban Treaty had been “surprising and concerning”. It had “failed to participate in a string of multilateral discussions on nuclear disarmament”. It described this approach as “irreconcilable with the UK’s international obligation under Article 6 of the NPT”.⁴⁴⁹ Mr Ingram said participation would have been an opportunity “to demonstrate good will and to treat Non-Nuclear Weapon States’ concerns seriously”. The Government should have shown “a little more humility by turning up to these events and voting in a way that was consistent with our policies.”⁴⁵⁰

253. Dr Ritchie said that nuclear possessor states could have participated in the conferences and the Ban Treaty negotiations, but acknowledged that it was “highly unlikely that they were going to engage meaningfully in a process that challenges the legitimacy of nuclear weapons and nuclear deterrence”.⁴⁵¹

UK response to the signature of the Ban Treaty

254. Dr Roberts regarded opposition to the treaty to be the right approach: the UK should inhibit the treaty’s entry into force, including using “a diplomatic strategy aimed at persuading signatories not to pursue ratification at this time”.⁴⁵²

255. Other witnesses took a different view. Mr Ingram said the UK had “misplayed” its rejection of the Ban Treaty.⁴⁵³ UNA-UK said the UK was “ill advised to ... declare that the action of the significant number of 122 member states ... does not constitute customary international law”.⁴⁵⁴ The UK’s response had “been picked up by a certain grouping within the international community, of a level of arrogance and a commitment to possessing nuclear weapons indefinitely, which ... undermines our claim ... that we are in favour of non-proliferation, both vertical and horizontal”.⁴⁵⁵

256. Witnesses suggested possible changes to the UK’s attitude to the Ban Treaty. First, a change in tone.⁴⁵⁶ Mr Ingram said the UK should “acknowledge the

447 [Q 24](#)

448 [Q 162](#)

449 Written evidence from the United Nations Association UK ([NPT0028](#))

450 [Q 32](#)

451 [Q 105](#)

452 Written evidence from Dr Brad Roberts ([NPT0029](#))

453 [Q 33](#)

454 It noted that in the “context ... of the development of a norm regarding the use of military force for purposes of humanitarian intervention, the United Kingdom has been making the case that the actions of a mere three states (the US, UK and France) constitute a new element of customary international law”. Written evidence from the United Nations Association-UK ([NPT0028](#)) The 122 states voted to adopt the treaty; it has 70 signatories and 22 ratifications. UN, ‘United Nations Treaty Collection—Treaty on the Prohibition of Nuclear Weapons’: https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVI-9&chapter=26&clang=en [accessed 3 April 2019]

455 [Q 32](#) (Paul Ingram)

456 Written evidence from the United Nations Association UK ([NPT0028](#))

frustration that lies behind the Ban Treaty and then get on with ... [a] step-by-step approach to disarmament.”⁴⁵⁷

257. Similarly, Ms Shetty suggested that the UK should continue to oppose the Ban Treaty, “but ... in a more constructive and respectful manner”. It could “legitimately express its concerns about the treaty”, but in order to “try to halt the deepening polarisation”, it would have to “help to foster a more positive atmosphere in the run-up to the 2020 Review Conference and ... choose to adopt a less confrontational tone in public statements with other nuclear-weapons states.”⁴⁵⁸
258. Ms Fihn said the UK “might not be in a position to join the treaty right now” but should “stop undermining it by trying to prevent other countries from signing”.⁴⁵⁹
259. These suggestions were consistent with Ms Nakamitsu’s view that the “divisions” between proponents and opponents of the Ban Treaty would “need to be bridged”.⁴⁶⁰ Mr Koenders took a similar view.⁴⁶¹ Ms Nakamitsu said she and the Secretary-General “always appeal to member states to remember that there is no one path to the elimination of nuclear weapons.”⁴⁶²
260. Second, the UNA-UK said that in future, the UK should “commit to attending all multilateral meetings on nuclear disarmament. Objections to the substance of any such meeting should be made from within the room.”⁴⁶³
261. Third, UNA-UK said the UK “should follow Sweden’s lead ... by embarking upon an independent or public consultation on the consequences of a possible future implementation” of the Ban Treaty.⁴⁶⁴ A number of witnesses including the International Campaign to Abolish Nuclear Weapons and Article 36 advocated the signature of the Ban Treaty, within varying timeframes.⁴⁶⁵
262. **The Ban Treaty has little chance of achieving its goals in the short to medium term, not least because none of the nuclear possessor states are signatories. While we welcome evidence from its proponents that it will not undermine the Nuclear Non-Proliferation Treaty, we believe the Ban Treaty risks exacerbating existing polarisation between Nuclear and Non-Nuclear Weapon States while delivering no immediate disarmament benefits. We understand and accept that the Government will remain opposed to the Ban Treaty.**
263. **We also believe however that the increasing signs of division between Nuclear and Non-Nuclear Weapon States are matters of concern, and that the dissatisfaction of the Ban Treaty’s proponents with the**

457 [Q 33](#)

458 [Q 33](#)

459 [Q 111](#)

460 [Q 7](#)

461 [Q 144](#)

462 [Q 7](#)

463 Written evidence from the United Nations Association UK ([NPT0028](#))

464 Written evidence from the United Nations Association-UK ([NPT0028](#)) A report was produced for the Swedish Parliament on the possibility of Sweden acceding to the Ban Treaty. It concluded that Sweden should not join the treaty. ICAN, ‘Disappointing report from the Swedish inquiry into joining Nuclear Ban Treaty’ (18 January 2019): <http://www.icanw.org/campaign-news/sweden-inquiry-into-joining-nuclear-ban-treaty/> [accessed 20 March 2019]

465 Written evidence from the International Campaign to Abolish Nuclear Weapons ([NPT0012](#)); written evidence from Article 36 ([NPT0025](#)). Article 36 said that NATO membership did not preclude this: “states ratifying the TPNW could continue military co-operation with nuclear-armed states”.

status quo on disarmament should be taken seriously. We therefore recommend that the Government should adopt a less aggressive tone about this treaty and seek opportunities to work with its supporters towards the aims of Article 6 of the Nuclear Non-Proliferation Treaty, which concerns disarmament.

264. **More openness from the UK, as a responsible nuclear state, on the possible humanitarian impact of nuclear weapons, and a willingness to engage on developing strategies to manage the consequences of nuclear weapons use, would be welcome.**

CHAPTER 4: CHALLENGES TO NON-PROLIFERATION AND ARMS CONTROL

265. The principal challenges to the existing non-proliferation and arms control regime are: the potential collapse of the Joint Comprehensive Plan of Action (JCPOA, more commonly known as the Iran nuclear deal); North Korea's development of nuclear weapons; the non-entry into force of the Comprehensive-Test-Ban Treaty; the inability of the Conference on Disarmament to agree a programme of work; the expected collapse of the Intermediate-Range Nuclear Forces (INF) Treaty; and the potential decision by the United States and Russia not to extend the New Strategic Arms Reduction Treaty (New START).

The Iran nuclear deal

266. The survival of the Iran nuclear deal is one of the most pressing issues in nuclear diplomacy. Ms Cox said having prevented “Iran from going nuclear” had been the last decade’s “most notable non-proliferation win”.⁴⁶⁶ The Minister said the UK was “a main party to the establishment of the” agreement and the Government had “championed it ever since.”⁴⁶⁷

267. The Iran nuclear deal is detailed in Box 7.

268. We considered the Iran nuclear deal in our 2017 report *The Middle East: Time for new realism*, concluding that “The UK should continue to support the Iran nuclear deal, whether or not it is supported by the US.”⁴⁶⁸ Following the May 2018 decision by the United States to withdraw from the deal and reimpose nuclear related sanctions on Iran,⁴⁶⁹ we concluded in our 2018 report *UK foreign policy in a shifting world order* that this decision by Washington was “contrary to the interests of the United Kingdom”.⁴⁷⁰

466 Q 94

467 Q 157

468 International Relations Committee, *The Middle East: Time for new realism* (2nd Report, Session 2016–2017, HL Paper 159)

469 White House, ‘Remarks by President Trump on the Joint Comprehensive Plan of Action’ (8 May 2018): <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-joint-comprehensive-plan-action/> [accessed 14 March 2019]

470 International Relations Committee, *UK foreign policy in a shifting world order* (5th Report, Session 2017–19, HL Paper 250)

Box 7: The Iran nuclear deal

The Joint Comprehensive Plan of Action (JCPOA, commonly referred to as the Iran nuclear deal) is an agreement between Iran and the P5+1 (China, France, Germany, Russia, the UK and the US)⁴⁷¹ on Iran's nuclear programme. It was agreed on 14 July 2015 and endorsed by the UN Security Council on 20 July 2015.

In exchange for the lifting of UN, US and EU nuclear-related economic sanctions, Iran committed to various restrictions and limitations on its nuclear programme, to be verified by the IAEA. As of March 2019 the IAEA has verified that Iran remains in compliance with the deal.⁴⁷²

Provisions of the Iran nuclear deal include:

- The reduction of the number of centrifuges in Iran used for the enrichment of Uranium;
- The conversion of the Fordow Fuel Enrichment Plant to a research facility;
- Limits on the research and development of centrifuges;
- A reduction in the capabilities of the Arak nuclear facility;
- An extensive monitoring and verification regime agreed with the IAEA.

Some key provisions agreed to in the Iran nuclear deal are time limited for between 8.5 and 25 years. These are sometimes known as 'sunset clauses'.

In May 2018 President Trump announced that the United States would withdraw from the Iran nuclear deal and reimpose nuclear-related sanctions on Iran. The other parties to the agreement continue to support the deal.

In a statement to the House of Commons on 9 May 2018, the then Foreign Secretary, Boris Johnson MP, said:

"The US decision makes no difference to the British assessment that the constraints imposed on Iran's nuclear ambitions by the [Iran nuclear deal] remain vital for our national security and the stability of the Middle East ... Britain has no intention of walking away; instead we will co-operate with the other parties to ensure that while Iran continues to restrict its nuclear programme, then its people will benefit from sanctions relief in accordance with the central bargain of the deal."⁴⁷³

Source: Arms Control Association, 'The Joint Comprehensive Plan of Action (JCPOA) at a Glance': <https://www.armscontrol.org/factsheets/JCPOA-at-a-glance> [accessed 22 March 2019]

269. The FCO said it "deeply" regretted the US's withdrawal. "Three years into the deal Iran has complied with its commitments under the agreement, as verified by the IAEA's reports. The UK is committed to the full and

471 The P5+1 derives its name from the five permanent members of the UN Security Council in addition to Germany. It is not the same initiative as the P5 group that works on wider non-proliferation and disarmament issues referred to elsewhere in this report. The P5+1 is often referred to as the E3+3 in Europe, to denote the role of the three European states.

472 In a speech to the IAEA Board of Governors on 4 March 2019, Director General Yukiya Amano stated that "Iran is implementing its nuclear-related commitments under the Joint Comprehensive Plan of Action." IAEA, 'IAEA Director General's Introductory Statement to the Board of Governors' (4 March 2018): <https://www.iaea.org/newscenter/statements/iaea-director-generals-introductory-statement-to-the-board-of-governors-4-March-2019> [accessed 14 March 2019]

473 Gov.uk, 'Foreign Secretary's statement on the Iran nuclear deal, 9 May 2018' (9 May 2018): (<https://www.gov.uk/government/speeches/foreign-secretary-statement-on-the-iran-nuclear-deal>) [accessed 14 March 2019]

long-term implementation of the [Iran nuclear deal], so long as Iran remains compliant”.⁴⁷⁴ Ms Price said IAEA reports gave “really high levels of assurance” that Iran was abiding by its commitment to end its nuclear programme.⁴⁷⁵ Ms Bell noted that as well as IAEA assurances, “The United States’ own intelligence agencies have affirmed that Iran is in compliance with the agreement”⁴⁷⁶ Mr Plant said the UK position was “a fairly stern critique of US policy, considering the usual tenor of UK–US discussions on anything diplomatically, but nuclear issues in particular”.⁴⁷⁷

270. The US has cited issues other than Iran’s compliance with the agreement as justification for its withdrawal from the deal. President Trump cited Iran’s alleged sponsoring of terrorism, and said it fuelled “conflicts across the Middle East”. He also alleged that the agreement “was so poorly negotiated” that even if Iran were in compliance, it would “still be on the verge of a nuclear breakout in just a short period of time.”⁴⁷⁸ Finally, President Trump said the deal failed to “address the regime’s development of ballistic missiles that could deliver nuclear warheads.”⁴⁷⁹

271. Mr Koenders said the “extreme polarisation in the world on the issue of Iran” was “understandable” given “Iran’s activities on ballistic missiles and human rights, and on its activities in Syria especially, but also in Iraq.”⁴⁸⁰ The Government said it remained “concerned about Iran’s development of ballistic missile capability ... and its destabilising regional activities, including the proliferation of ballistic missiles and related technology”, but still “strongly” supported the deal.⁴⁸¹

272. The White House has called on the European parties to the Iran nuclear deal to back its position. In a speech to the Munich Security Conference on 16 February 2019, Vice President Mike Pence said:

“The time has come for our European partners to stop undermining U.S. sanctions against this murderous revolutionary regime. The time has come for our European partners to stand with us and with the Iranian people, our allies and friends in the region. The time has come for our European partners to withdraw from the Iran nuclear deal and join us as we bring the economic and diplomatic pressure necessary to give the Iranian people, the region, and the world the peace, security, and freedom they deserve.”⁴⁸²

Europe’s support

273. When asked whether the non-US parties to the Iran nuclear deal were right to defend the agreement, Sir Simon Gass said it was “absolutely right” and

474 Written evidence from the Foreign and Commonwealth Office (NPT0035)

475 Q 16

476 Q 114

477 Q 36

478 Breakout capacity refers to time it would take for a state to develop a nuclear weapons capability, based on the advanced state of its civilian nuclear programme.

479 White House, ‘Remarks by President Trump on the Joint Comprehensive Plan of Action’ (8 May 2018): <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-joint-comprehensive-plan-action/> [accessed 14 March 2019]

480 Q 146

481 Written evidence from the Foreign and Commonwealth Office (NPT0035)

482 White House, ‘Remarks by Vice President Pence at the 2019 Munich Security Conference, Munich, Germany’ (16 February 2019): <https://www.whitehouse.gov/briefings-statements/remarks-vice-president-pence-2019-munich-security-conference-munich-germany/> [accessed 14 March 2019]

in some cases “quite courageous”. The agreement “does what it set out to do, which was to ensure that Iran’s nuclear programme would no longer, during the duration of the provisions of the agreement, pose the threat that we felt we were facing”.⁴⁸³

274. Dr Meier said that the Iran nuclear deal was “the single most important issue for European credibility on non-proliferation.” He said sustaining the Iran nuclear deal was “important for Europe’s strategic autonomy ... a litmus test for Europeans to uphold their international commitments”.⁴⁸⁴ Ms Fihn described the “UK’s work with France and Germany on supporting and strengthening the Iran deal” as “extremely helpful and important.”⁴⁸⁵
275. Ms Shetty thought that, however, in spite Europe’s efforts to defend the Iran nuclear deal, the “hard [work] to try to change the US position” had been to “little end”.⁴⁸⁶

China and Russia

276. US withdrawal from the Iran nuclear deal was “a blow to China” according to Dr Leveringhaus, as Beijing “considered itself an important broker” of the deal.⁴⁸⁷ Dr Zhao said that China was “a great supporter of preserving the [deal]”, in part because of China’s Belt and Road Initiative,⁴⁸⁸ which “which needs [a] stable Iran”. A “complicating factor” for Beijing’s support of the Iran deal, however, was the “growing US/China bilateral” problems. Dr Zhao was not sure how much China would want “to provoke the US ... to preserve the [Iran nuclear deal].”⁴⁸⁹
277. Russia was “active in facilitating the dialogue over the Iranian nuclear programme” according to Dr Malygina. A “responsible attitude to existing ... non-proliferation agreements” was “fundamentally important”, and Russia had “not seen much of that lately”, citing US withdrawal from the Iran nuclear deal as an example.⁴⁹⁰ Mr Baklitskiy said “the US withdrawal from the [Iran nuclear deal] showed [Washington’s] limited interest in mutually acceptable multilateral solutions” to international crises.⁴⁹¹

Sanctions

278. Lord Browne said it was difficult for European governments to support the Iran nuclear deal in “an environment in which the dollar is so powerful.” US secondary sanctions (see Box 8) “significantly” affected “what business people who would be prepared to work in Iran would do”.⁴⁹²
279. Ms Price noted that US sanctions constrained the ability to use the US and international banking systems for trade with Iran.⁴⁹³ Sir Simon Gass said

483 [Q 68](#)

484 [Q 115](#)

485 [Q 107](#)

486 [Q 27](#)

487 Written evidence from Dr Leveringhaus ([NPT0032](#))

488 The Belt and Road Initiative (BRI) is a Chinese investment plan to develop infrastructure throughout Asia, Africa and parts of Europe. It was considered in our 2018 report *UK foreign policy in a shifting world order*. International Relations Committee, *UK foreign policy in a shifting world order* (5th Report, Session 2017–19, HL Paper 250)

489 [Q 122](#)

490 [Q 132](#)

491 Written evidence from Andrey Baklitskiy ([NPT0046](#))

492 [Q 53](#)

493 [Q 16](#)

this was an issue because many businesses had “substantial” US and dollar interests.⁴⁹⁴ This challenge was why, according to Ms Price, the EU was “trying to put together a special purpose vehicle” (see Box 8) to facilitate business in Iran.⁴⁹⁵

280. Mr Plant said US sanctions were the “entirely wrong” approach. He said that “sanctions never brought Iran to its knees in the first place”, but rather they “succeeded in creating a perceived security risk within Iran for the Supreme Leader: if there was another Green Revolution,⁴⁹⁶ certain groups that had sustained him might not turn out in the same force again”. Mr Plant said those “circumstances do not exist now, because there is broader support” for the nuclear deal.⁴⁹⁷

281. On the other hand, several witnesses noted that renewed US nuclear-related sanctions were not the only obstacle to investing in Iran’s economy. Ms Price said that while “businesses take decisions based on sanctions ... they are also based on a whole range of other factors, including the business environment in a country such as Iran.”⁴⁹⁸ Sir Simon Gass agreed: “there are difficulties in doing business with Iran that have nothing to do with the nuclear issue” and with “the opacity of the Iranian banking and commercial systems, the difficulty of knowing exactly who you are dealing with in Iran.”⁴⁹⁹

494 [Q 68](#)

495 [Q 16](#)

496 The Green Revolution began in June 2009 with a spontaneous mass demonstration against the victory of Mahmoud Ahmadinejad as President of Iran. This was followed by mass demonstrations and civil disobedience until February 2010, when the authorities suppressed the demonstrations and arrested its leaders. Hamid Dabashi, ‘What happened to the Green Movement in Iran?’, Al Jazeera (12 June 2013): <https://www.aljazeera.com/indepth/opinion/2013/05/201351661225981675.html> [accessed 3 April 2019]

497 [Q 36](#)

498 [Q 16](#)

499 [Q 70](#)

Box 8: Sanctions on Iran and the Instrument for Supporting Trade Exchanges

From 2006 sanctions were imposed on Iran's economy in response to its alleged nuclear weapons development programme. In December 2006 the UN Security Council unanimously agreed multilateral sanctions, which were further expanded in March 2008 and June 2010. The United States and the EU also imposed bilateral sanctions.

In the Iran nuclear deal it was agreed that the P5+1 would lift nuclear-related sanctions on Iran following the implementation of the deal. This was announced on 16 January 2016, following which nuclear-related sanctions were lifted.⁵⁰⁰

Following the announcement of the US withdrawal from the Iran nuclear deal on 9 May 2018, US Treasury Secretary Steve Mnuchin announced that waived US sanctions would be reintroduced after 90- and 180-day 'wind-down' periods. These wind-down periods were to allow foreign businesses to end their dealings in Iran before they became subject to US secondary sanctions.

Secondary sanctions affect parties that do business with parties subject to direct primary sanctions. In the case of Iran, US secondary sanctions threaten to restrict non-Iranian entities' access to US financial markets if they do business with sanctioned Iranian entities.

The United States refused a request by France, Germany, the UK and the EU to exempt entities doing legitimate business with Iran from US secondary sanctions.

On 5 November 2018, following the 180-day wind-down period, the US reimposed the remaining nuclear-related sanctions on Iran. In addition to those sanctions it waived, Washington designated an "additional 300 new entities". Temporary waivers were granted to China, India, Italy, Greece, Japan, South Korea, Taiwan and Turkey to continue importing Iranian oil at reduced levels.⁵⁰¹

On 31 January 2019 France, Germany and the United Kingdom announced the creation of INSTEX (Instrument for Supporting Trade Exchanges), "a Special Purpose Vehicle aimed at facilitating legitimate trade between European economic operators and Iran." Jeremy Hunt, the Secretary of State for Foreign and Commonwealth Affairs, said that France, Germany and the United Kingdom had "taken a significant step forward in delivering our commitment under the Iran nuclear deal to preserve sanctions relief for the people of Iran."

Sources: Foreign & Commonwealth Office, 'New mechanism to facilitate trade with Iran: joint statement': <https://www.gov.uk/government/news/joint-statement-on-the-new-mechanism-to-facilitate-trade-with-iran> [accessed 22 March 2019]; IAEA, 'IAEA and Iran: Chronology of Key Events': <https://www.iaea.org/newscenter/focus/iran/chronology-of-key-events> [accessed 22 March 2019]; and Arms Control Association, 'Iran Proliferation Issues': <https://www.armscontrol.org/taxonomy/term/140> [accessed 22 March 2019]

282. Several witnesses expressed scepticism that the establishment by France, Germany and the UK of the Instrument for Supporting Trade Exchanges (INSTEX), detailed in Box 8, would be effective in bypassing US secondary sanctions and providing the level of sanctions relief Tehran would need to maintain the nuclear deal. Dr Meier referred to it as "symbolic right now",

500 On 17 January 2016 the US imposed targeted sanctions in relation to Iran's non-nuclear ballistic missile programmes.

501 The US granted these temporary waivers to reduce the immediate impact of sanctions on global oil prices.

but suggested it “could evolve into something”.⁵⁰² Mr Koenders referred to the “vehicle” as “weak”, and said Europe needed to “beef [it] up”.⁵⁰³

283. Sir Simon Gass thought it was “good that the European Union is doing these things” but he did not “expect them to make a very major difference to the volume of trade” between the EU and Iran. He added that if he were Iranian he would “be looking more towards Russia, China and perhaps some other countries” to “maintain trade flows”.⁵⁰⁴

The future of the Iran deal

284. Sir Simon Gass thought Tehran would “stick with the agreement for a time” as “evading some parts of the agreement ... might put Iran into a rather dangerous position.” He added that Iran would “perhaps wait to see what happens in US domestic politics” and that Tehran “would take some comfort ... in the way this issue has divided the United States from its key European partners.” He said this latter point “should be a concern” to the UK.⁵⁰⁵
285. Lord Browne said “most ... experts” were “pessimistic about where it will all end up”.⁵⁰⁶ Ms Shetty said that the Iran deal could still “collapse”, and that this would have “proliferation consequences for the region”⁵⁰⁷ (as discussed in Chapter 3). Mr Baklitskiy thought the resumption of a “full scale” nuclear programme in Iran could result in “a nuclear technology race in the Middle East”, “escalation of tensions around Iran”, and “military strikes against Tehran”, which could push the region “into another war.”⁵⁰⁸
286. Mr Koenders said the collapse of the Iran nuclear deal would be “another undermining of a multilateral treaty.” This was a “risky ... signal” to other countries, “including North Korea”.⁵⁰⁹ Sir Simon Gass said there was a “much wider non-proliferation reason” for defending the Iran nuclear deal. To “step away from obligations, particularly perhaps when one party has already gone to considerable lengths to meet its obligations under that agreement ... undermines confidence in arms control arrangements, and indeed in agreements generally.”⁵¹⁰ Ambassador Kmentt thought the Iran nuclear deal was “crucial” in efforts to “shore up the non-proliferation pillar of the NPT”, and that US withdrawal had placed the “norm against non-proliferation” in serious doubt.⁵¹¹
287. **The US decision to withdraw from the Iran nuclear deal is against the interests of the United Kingdom and undermines the global non-proliferation regime. The Government has been right to defend the deal; we welcome its co-operation with European partners to find ways to preserve it.**

502 [Q 116](#)

503 [Q 146](#)

504 [Q 68](#)

505 [Q 68](#)

506 [Q 53](#)

507 [Q 27](#)

508 Written evidence from Andrey Baklitskiy ([NPT0046](#))

509 [Q 146](#)

510 [Q 68](#)

511 [Q 87](#)

288. **The Government should consult its partners in the Iran nuclear deal about how best to ensure that the gains to the non-proliferation regime delivered by the constraints on Iran’s nuclear programme set out in the deal are not put in jeopardy when its time-limited provisions come to an end.**

North Korea

289. Professor Evans described North Korea’s nuclear programme as one of “the two crucial cutting-edge cases currently testing the international community’s capacity and resolve on non-proliferation and disarmament respectively”.⁵¹² The Minister told us North Korea posed “an unacceptable threat to the international community”.⁵¹³

Box 9: History of North Korea’s nuclear programme

The Democratic People’s Republic of Korea (DPRK, or North Korea) joined the NPT in 1985.

In 1993 the IAEA first accused North Korea of violating the NPT and demanded access to nuclear sites.

In October 1994 the US and North Korea signed the Agreed Framework, which committed the latter to freezing its nuclear programme in exchange for civil nuclear energy support.

In December 2002 North Korea announced it was reactivating its nuclear facilities at Yongbyon and would expel UN inspectors. In January 2003 Pyongyang announced its intention to withdraw from the NPT.

North Korea announced in February 2005 that it had developed nuclear weapons, and conducted its first underground test in October 2006.

Following increasing tensions, relations between the US and North Korea reached a low following Pyongyang’s threat to fire a ballistic missile near Guam, a US territory, in August 2017.

Beginning in January 2018, talks between North and South Korea resulted in an agreement to end hostilities between the two in April 2018.

In June 2018 President Trump became the first US President to meet a North Korean leader at a summit in Singapore. A second summit took place in Hanoi, Vietnam, in February 2019.

Source: BBC, ‘North Korea profile—Timeline’: <https://www.bbc.co.uk/news/world-asia-pacific-15278612> [accessed 22 March 2019]

290. The FCO said North Korea “continues to challenge non-proliferation norms and the NPT itself.”⁵¹⁴
291. North Korea claims to have withdrawn from the NPT in January 2003 (see Box 9 and Chapter 3). Ms Price said in the Government’s view, “although North Korea has expressed its intention to leave the NPT, we do not believe

512 Written evidence from Professor Gareth Evans (NPT0036). The other case was Iran’s nuclear programme.

513 Q 157

514 Written evidence from the Foreign and Commonwealth Office (NPT0035)

that it has done so fully ... We would say that it still has responsibilities and commitments under the NPT that we think it needs to meet.”⁵¹⁵

292. Ms Berger said that the idea that “if certain leaders whom they had close relations with had had a nuclear weapons capability, they might still be alive and in power” was a lesson “not lost on North Korea”.⁵¹⁶ While North Korea’s nuclear weapons programme was “driven by perceived insecurity”, it had also become “ingrained in North Korea’s own national identity”. Kim Jong-Un had used the nuclear programme “very effectively to achieve his own domestic political aims.”⁵¹⁷

US–North Korea negotiations

293. North Korea has been subject to UN sanctions since its first nuclear test in 2006. Ms Berger thought these sanctions had caused pain but not necessarily changed Pyongyang’s thinking.⁵¹⁸ On 19 September 2017, following tensions between the United States and North Korea as a result of the latter’s nuclear tests, President Trump in a speech to the UN General Assembly said:

“North Korea’s reckless pursuit of nuclear weapons and ballistic missiles threatens the entire world with unthinkable loss of human life ... The United States has great strength and patience, but if it is forced to defend itself or its allies, we will have no choice but to totally destroy North Korea. Rocket Man [Kim Jong-Un] is on a suicide mission for himself and for his regime.”⁵¹⁹

In an earlier press conference on 8 August 2017, President Trump had said North Korea would “be met with fire and fury” if it threatened the US.⁵²⁰

294. In a change of approach, on 12 June 2018 President Trump met North Korean leader Kim Jong-Un in Singapore. In a joint statement released at the Summit’s close, the two leaders said:

“President Donald J. Trump of the United States of America and Chairman Kim Jong-Un of the State Affairs Commission of the Democratic People’s Republic of Korea have committed to co-operate for the development of new US–DPRK relations and for the promotion

515 [Q 17](#). Ms Berger said that since 2003, there had been little discussion by States Parties about North Korea at formal NPT meetings. [Q 74](#) (Andrea Berger)

516 An example of this is the fate of Muammar Gaddafi in Libya. In 2003, following the US-led invasion of Iraq, Libya agreed to voluntarily relinquish nuclear weapons equipment purchased from A.Q. Khan, the leader of Pakistan’s nuclear programme. Following the Libyan Civil War and a NATO-led bombing campaign, Gaddafi was deposed and killed in 2011. In 2016, after North Korea conducted a nuclear test, North Korean state media cited Libya as an example of what happens to states that give up nuclear programmes of their own accord. Megan Specia and David E. Sanger, ‘How the ‘Libya Model’ Became a Sticking Point in North Korea Nuclear Talks’, *New York Times* (16 May 2018): <https://www.nytimes.com/2018/05/16/world/asia/north-korea-libya-model.html> [accessed 14 March 2019]

517 [Q 71](#)

518 [Q 73](#)

519 White House, ‘Remarks by President Trump to the 72nd Session of the United Nations General Assembly’ (19 September 2017): <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-72nd-session-united-nations-general-assembly/> [accessed 3 April 2019]

520 ‘Donald Trump threatens ‘fury’ against N Korea’, *BBC News* (8 August 2017): <https://www.bbc.co.uk/news/world-us-canada-40869319> [accessed 3 April 2019]

of peace, prosperity, and security of the Korean Peninsula and of the world.”⁵²¹

295. A second summit took place in Hanoi, Vietnam, on 28 February 2019. The Hanoi Summit ended without an agreement. During a press conference at the close of the Summit, President Trump said:

“I think [mine and Kim Jong-Un’s] relationship is very strong. But ... we had some options, and at this time we decided not to do any of the options ... But it was a very interesting two days. And I think, actually, it was a very productive two days. But sometimes you have to walk, and this was just one of those times.”⁵²²

296. Ms Berger said that “negotiations with North Korea, at least on the nuclear issue, have not really happened yet.” North Korea had “made a very clear and concerted effort to skip working-level discussions and escalate the conversation up to presidential level, which is where they feel they can get the best agreement for them, or the best outcome for them”. She said they were “probably right” in this approach given the “persuasions of this US President”.⁵²³

297. Ms Berger was sceptical as to how much had been achieved. “North Korea has refrained from doing some of the types of developmental testing that they were so actively doing in 2017”, both in terms of “missile and nuclear weapons testing”. However, the North Koreans had “explained that to their own population as being about no longer needing to do that sort of testing because they achieved the capability by the end of 2017.” Since the beginning of US–North Korea talks there had “absolutely not” been a “material or a meaningful change in North Korea’s level of capability”; Pyongyang was “continuing to produce ballistic missiles that are the delivery systems for the nuclear weapons” and North Korea had “told us that they are doing sub-critical nuclear testing”.⁵²⁴ Moreover, North Korean research and investment was continuing.⁵²⁵

298. Ms Berger said the possibility that North Korea was “at all interested” in giving up its nuclear weapons was “very remote.” It was possible that sustained dialogue over “10 to 20 years” on issues including arms control and transparency measures might change Kim Jong-Un’s mind, but she thought this was “far away.”⁵²⁶ Dr Clegg believed there was a different “conception” in Washington and Pyongyang on what “Korean denuclearisation” meant, with the former believing it “simply a matter of [North Korea] getting rid of its nuclear weapons” and the latter thinking it involved “the Korean peninsula as a whole, including restraints by other powers.”⁵²⁷

521 White House, ‘Joint Statement of President Donald J. Trump of the United States of America and Chairman Kim Jong Un of the Democratic People’s Republic of Korea at the Singapore Summit’ (12 June 2018): <https://www.whitehouse.gov/briefings-statements/joint-statement-president-donald-j-trump-united-states-america-chairman-kim-jong-un-democratic-peoples-republic-korea-singapore-summit/> [accessed 3 April 2019]

522 White House, ‘Remarks by President Trump in Press Conference—Hanoi, Vietnam’ (28 February 2019): <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-press-conference-hanoi-vietnam/> [accessed 3 April 2019]

523 Q 71

524 Q 74

525 Q 36 (Tom Plant)

526 Q 74

527 Written evidence from Dr Jenny Clegg (NPT0021)

299. Mr Baklitskiy said that while dialogue between the US and North Korea was “a welcome change compared to [the 2017] ‘fire and fury’ approach”, Washington’s position could be “reversed”.⁵²⁸ Mr Plant took a different view, noting that the “rapprochement between the north and the south has effectively removed the risk of war on the peninsula”.⁵²⁹

Role of the UK

300. The FCO said the UK had “played an active role in pushing the DPRK to renounce their illegal nuclear weapons programme through the agreement of a series of robust UN Security Council Resolutions and proactive sanctions enforcement”. The Government was “maintaining pressure on the DPRK regime in close co-ordination with the US and other partner nations, and [stood] ready to assist in the denuclearisation of the DPRK using the UK’s unique capabilities.” It continued “to believe that negotiations” were “the best way to make progress towards the complete, verifiable, and irreversible end to [North Korea’s] WMD and ballistic missile programmes.”⁵³⁰
301. Ms Shetty said there was “limited input from the UK” on North Korea, as the “diplomacy effort” was “led primarily by the United States”. The UK was “not as important a partner to the Trump Administration as ... the South Koreans and the Chinese”, although “nor should it be ... given its other priorities.”⁵³¹ The Minister said that the UK’s “influence and direct involvement” was “greater in the case of Iran than it was in North Korea”, citing “obvious geographic and other reasons.”⁵³²

Other regional powers

302. China’s views were “critical” in understanding the possible future of the Korean Peninsula.⁵³³ Mr Plant said China could not “tell the North Koreans what to do”, but he thought President Xi Jinping’s message to Pyongyang had been to “hold firm” and it would “get more out of Trump”.⁵³⁴
303. Dr Zhao said that China had a different understanding of the North Korean issue to the US. Beijing was aware of risks of tougher sanctions: North Korea would potentially become an “enemy of China”, and China “would never want to put itself in the crosshairs of North Korean nuclear weapons.”⁵³⁵ Mr Plant noted that China’s “power over North Korea” was one of “life and death.”⁵³⁶
304. Mr Plant said Seoul’s priorities were “not those of the US”. Non-proliferation was “very low down that list of priorities for the South Korean Administration”. “The discrepancy in the approach” between South Korea and the United States “allows North Korea to forum shop, and of course they have chosen the forum that is better for them: South Korean discussions.”⁵³⁷

528 Written evidence from Andrey Baklitskiy ([NPT0046](#))

529 [Q 36](#)

530 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

531 [Q 27](#)

532 [Q 157](#)

533 [Q 37](#) (Tom Plant)

534 [Q 37](#)

535 [Q 122](#)

536 [Q 37](#)

537 [Q 36](#)

North Korea, Iran and the wider non-proliferation regime

305. Lord Browne said any future deal to denuclearise North Korea would “look very much like” the Iran nuclear deal. There would “have to be restrictions on what North Korea can do, and ... inspection and verification to make sure that it stays within those restrictions.” This was akin to the Iran nuclear deal.⁵³⁸
306. Several witnesses said that the US Administration was “treating Pyongyang remarkably differently from Tehran”.⁵³⁹ Dr Meier said “the US sometimes seems to be courting a country that is violating international norms and agreements and at the same time trying to punish a country such as Iran, which is currently upholding its international non-proliferation commitments.”⁵⁴⁰
307. Dr Meier thought the “double standard” in the way the US was dealing with Iran and North Korea was “a problem for the NPT”.⁵⁴¹ Ms Bell agreed.⁵⁴²
308. Ms Bell added that she found it “troubling” that Secretary of State Mike Pompeo had “referenced ... that North Korea actually had nuclear weapons” as the justification for the difference in approach.⁵⁴³ She did not think the US “should be encouraging countries to get nuclear weapons in order to get a better deal from us.”⁵⁴⁴ Similarly, Mr Baklitskiy said that the current US approach to North Korea would “strengthen the notion that nuclear weapons are not only useful as a deterrent but also provide a valuable negotiating advantage”.⁵⁴⁵
309. Sir Simon Gass said that for Iran and North Korea, and any country that aspired to a “nuclear capability”, a “key reason” was “often a sense of vulnerability rather than a wish to be aggressive, although of course the two are almost two sides of a coin.” On non-proliferation:
- “one key issue we have to think about is how to give some countries a greater sense that they are not going to be threatened or attacked from outside. That, of course, becomes much harder when the key determinant of whether they have that security depends upon the word of the United States President and the willingness of the United States to stand by agreements it has entered into.”⁵⁴⁶
310. **We welcome efforts to seek a diplomatic solution to North Korea’s nuclear programme. Any future deal achieving the denuclearisation of North Korea will need to be complete and verifiable.**

538 [Q 54](#)

539 Written evidence from Andrey Baklitskiy ([NPT0046](#))

540 [Q 116](#)

541 [Q 116](#)

542 [Q 117](#)

543 US Department of State, ‘Interview With Roxana Saberi of CBS News’: <https://www.state.gov/secretary/remarks/2019/02/289467.htm> [accessed 22 March 2019]

544 [Q 117](#)

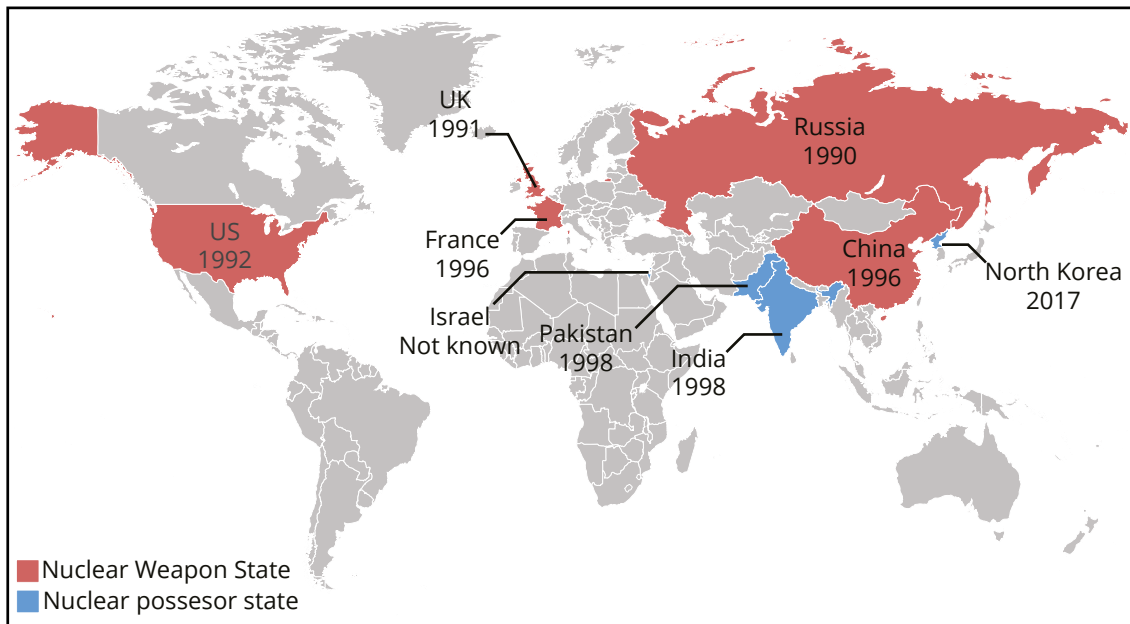
545 Written evidence from Andrey Baklitskiy ([NPT0046](#))

546 [Q 72](#)

The Comprehensive Nuclear-Test-Ban Treaty

311. Figure 5 shows the nuclear possessor states' most recent nuclear tests.

Figure 5: Most recent nuclear tests of the nuclear possessor states



Source: Preparatory Commission for the Preparatory Comprehensive Nuclear-Test-Ban Treaty Organisation (CTBTO), 'History of nuclear testing, world overview': <https://www.ctbto.org/nuclear-testing/history-of-nuclear-testing/world-overview/> [accessed 3 April 2019]

312. The Comprehensive Nuclear-Test-Ban Treaty (CTBT) was negotiated at the Conference on Disarmament, but due to a lack of consensus could not be agreed and was subsequently moved to the UN General Assembly, where it was agreed in 1996 (see Box 10).
313. Ms Nakamitsu said “early entry into force of the CTBT would be an enormously important step towards nuclear [weapons] elimination.”⁵⁴⁷ Trident Ploughshares said the failure to achieve the entry into force of the CTBT mirrored failures in the NPT, notably “the failure of nuclear armed states to make credible progress” towards disarmament.⁵⁴⁸
314. The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organisation (CTBTO) said that, “Against the challenge of establishing the legal and technical foundations needed for verifiable, transparent and irreversible nuclear disarmament, a comprehensive prohibition on nuclear testing is recognised as an integral element of a multilaterally-established nuclear disarmament framework.” Nonetheless, “entry into force remains elusive.”⁵⁴⁹
315. Ms Ballestas de Dietrich said the CTBT was having an effect, even though it had not yet entered into force. It had “been signed by the five Nuclear Weapon States” and while “China and the United States have yet to ratify the treaty, its very signature already obliges” all “signatories to not carry out

547 Q 7

548 Written evidence from Trident Ploughshares (NPT0005)

549 Written evidence from the Preparatory Commission for the Comprehensive Test-Ban Treaty Organization (NPT0049)

any actions that would defeat the CTBT’s object and purpose.”⁵⁵⁰ Medact told us that as a result of the CTBT nuclear tests could be “easily detected”, while the Women’s International League for Peace and Freedom UK said the treaty had a curbing effect.⁵⁵¹

Box 10: The Comprehensive Nuclear-Test-Ban Treaty

The Comprehensive Nuclear-Test-Ban Treaty (CTBT) bans “any nuclear weapon test explosion or any other nuclear explosion” globally. The CTBT was negotiated in the Conference on Disarmament in Geneva between 1994 and 1996 but, following objections from India and Iran, the treaty was moved to the UN General Assembly in September 1996 where it was agreed and opened for signature.

The treaty will not enter into force until 44 specific states, referred to as Annex 2 states, have ratified it. These states are those that had nuclear facilities (peaceful or otherwise) at the time of negotiation. As of April 2019, 168 countries have ratified but eight Annex 2 states have not: China, North Korea, Egypt, India, Iran, Israel, Pakistan and the United States.

The Clinton Administration was an active proponent of the CTBT, but the US Senate voted against the treaty’s ratification in 1999. The Obama Administration supported the CTBT but did not push for a Senate vote.

Article 2 of the treaty established the Comprehensive Nuclear-Test-Ban Treaty Organisation (CTBTO) to administer the treaty’s verification regime, comprising the International Monitoring System (IMS), the International Data Centre (IDC) and on-site inspections. A Preparatory Committee of the CTBTO, supported by the treaty’s 182 signatories (including the United States), is based in Vienna. Both the IMS and IDC are able to operate before the treaty enters into force, but on-site inspections cannot take place.

Source: UN Office for Disarmament Affairs, ‘Comprehensive Nuclear-Test-Ban Treaty (CTBT)’: <https://www.un.org/disarmament/wmd/nuclear/ctbt> [accessed 3 April 2019]; CTBTO, ‘What is the CTBT?’: <https://www.ctbto.org/the-treaty/article-xiv-conferences/2011/afc11-information-for-media-and-press/what-is-the-ctbt/> [accessed 3 April 2019]; and Arms Control Association, ‘Comprehensive Test Ban Treaty at a Glance’: <https://www.armscontrol.org/factsheets/test-ban-treaty-at-a-glance> [accessed 3 April 2019]

- 316. The FCO said the Government called on Annex 2 countries (see Box 10) that “have not ratified the Treaty”,⁵⁵² and are thus blocking its entry into force, “to do so ... as soon as possible.”⁵⁵³ The CTBTO described the UK as “among the leading supporters” of the treaty: “financially, politically and technically”.⁵⁵⁴
- 317. Witnesses considered the perspectives of nuclear possessor states on the CTBT. Dr Zhao thought Beijing was still “generally supportive” of it.⁵⁵⁵ Dr Leveringhaus believed the reasons for China having not yet ratified were “mostly strategic”, and due to the fact the US had not yet ratified, and India had not yet signed the treaty. She said China had demonstrated compliance

550 Ms Ballestas de Dietrich (NPT0027)

551 Written evidence from Medact (NPT0014) and written evidence from the Women’s International League for Peace and Freedom UK (NPT0023)

552 China, North Korea, Egypt, India, Iran, Israel, Pakistan and the United States.

553 Written evidence from the Foreign and Commonwealth Office (NPT0035)

554 Written evidence from the Preparatory Commission for the Comprehensive Test-Ban Treaty Organization (NPT0049)

555 Q 125

with the CTBT “through the certification of four [International Monitoring System] stations on Chinese soil in 2017.”⁵⁵⁶

318. Dr Sultan said India and Pakistan had “unilateral moratoria” on testing nuclear weapons, and “if both states could be encouraged to convert their respective unilateral moratoria into a legally binding bilateral arrangement, this would help the global non-proliferation and disarmament efforts.”⁵⁵⁷
319. The Executive Committee of British Pugwash told us “several of the other states that have still to ratify ... have said that they will take a cue from the United States”.⁵⁵⁸ Mr Miller assessed the prospects for “achieving the required number of [CTBT] ratifications” as “nil”.⁵⁵⁹ Ms Bell disagreed and advocated a step-by-step approach to securing the remaining necessary ratifications. It was important to consider how to “start putting the pieces into place to get people on board with that Treaty”, and suggested “The next step could be to see whether you could get Israel, Iran and Egypt to finally ratify”.⁵⁶⁰
320. The 2018 US Nuclear Posture Review stated that the Trump Administration would not seek ratification at this time.⁵⁶¹ Ms Bell admitted that “there are forces in the US Senate that never want to ratify agreements, no matter what they are.” She disagreed, however, with “the idea that the US Senate is incapable of ratifying any more treaties.” Countries would “get into treaties when they see that it is in their national security interests”. “20 years down the road” from the Senate’s 1999 rejection of the CTBT, Senators could be assured that the US could “maintain a safe, secure and effective stockpile without explosive nuclear testing” and that the International Monitoring System would “be able to detect illicit explosive tests even at very low yields”, both issues that had been factors in the Senate’s rejection.⁵⁶²
321. Ms Bell said the UK could be “influential”, and suggested the Government should consider whether there was “a way in which they could get to a moratorium [on nuclear testing] that would eventually lead to CTBT ratification”.⁵⁶³ The FCO said the UK continued “to be a vocal campaigner for the entry into force” of the CTBT and pressed the issue “whenever the opportunity presents itself”. The FCO recognised “the valuable contribution of voluntary national moratoria to international peace and security”. However, it was “evident that these individual and voluntary measures do not have the same permanent and legally-binding effect as the entry into force of the Treaty”.⁵⁶⁴
322. **Entry into force of the Comprehensive Nuclear-Test-Ban Treaty would be a significant step towards nuclear disarmament. We regret that a number of Annex 2 countries have yet to ratify the treaty. We strongly welcome the UK’s vocal support for the entry into force of the**

556 Written evidence from Dr Leveringhaus ([NPT0032](#))

557 Written evidence from Dr Adil Sultan Muhammad ([NPT0032](#))

558 Written evidence from the Executive Committee of British Pugwash ([NPT0003](#))

559 Written evidence from Franklin Miller ([NPT0042](#))

560 [Q 118](#) All three have signed the CTBT but have not yet ratified it.

561 Written evidence from Dr Jenny Clegg ([NPT0021](#)); US Department of Defense, ‘United States 2018 Nuclear Posture Review’: <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF> [accessed 3 April 2019]

562 [Q 118](#)

563 [Q 118](#)

564 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

Comprehensive Nuclear-Test-Ban Treaty, and its financial support for the Comprehensive Nuclear-Test-Ban Treaty Organisation. Meanwhile, we welcome the fact that the P5 are operating de facto moratoriums on nuclear testing and urge the Government to use its influence to ensure that continues.

The Conference on Disarmament

323. The Conference on Disarmament has 65 member states, including all nuclear possessor states. Member states have agreed that “The Conference shall conduct its work and adopt its decisions by consensus.”⁵⁶⁵ This includes the agreement of agendas and programmes of work. As a result of the Conference’s rules, any single member state can block progress on any issue.⁵⁶⁶
324. The inability of the Conference on Disarmament to agree a programme of work has been a challenge to non-proliferation and disarmament efforts. It operates by consensus and has “been blocked for 20-plus years”.⁵⁶⁷ Its last negotiation was for the CTBT (discussed above), the final negotiation of which was finally transferred to the UN General Assembly.
325. Pakistan is primarily responsible for blocking discussions at the CD, due to its objection to the negotiation of a Fissile Material Cut-off Treaty (discussed below).
326. Ms Nakamitsu said that in 2018 there had been “some progress in terms of the Conference on Disarmament returning to substantive discussions under the five subsidiary working groups”,⁵⁶⁸ which she hoped would continue in 2019.⁵⁶⁹

A fissile material cut-off treaty

327. Figure 6 shows the current global stockpiles of fissile materials.

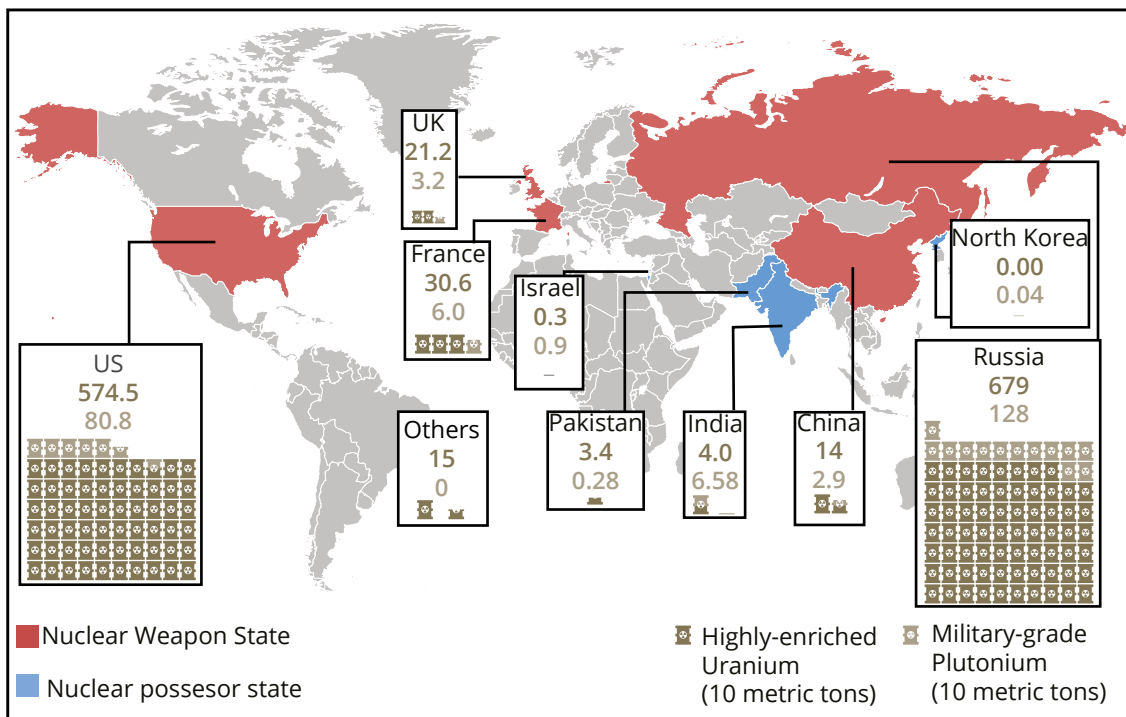
565 Conference on Disarmament, Rules of procedure of the Conference on Disarmament (19 December 2003): [https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/1F072EF4792B5587C12575DF003C845B/\\$file/RoP.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/1F072EF4792B5587C12575DF003C845B/$file/RoP.pdf) [accessed on 18 March 2019]

566 This issue was considered by several witnesses. Written evidence from Dr Rebecca Johnson (NPT0034), written evidence from Dr Lyndon Burford (NPT0043), and written evidence from A. Vinod Kumar (NPT0015)

567 Q 3 (Izumi Nakamitsu)

568 Q 3

569 Q 10 (Izumi Nakamitsu)

Figure 6: Global stockpiles of fissile materials

Source: International Panel on Fissile Materials, 'Fissile material stocks': <http://fissilematerials.org/> [accessed 3 April 2019]

328. The prospect of negotiating a treaty banning the production of the fissile material necessary for the creation of nuclear weapons⁵⁷⁰ has been on the agenda of the non-proliferation regime since the mid-1990s. However, progress has stalled. Ms Price said that while an “agreement to start negotiations on a Fissile Material Cut-off Treaty [FMCT] would be a really big prize”, “realistically, it will be very difficult because there is one participant”—Pakistan—that has objected for many years and is likely to continue to do so⁵⁷¹ Box 11 explains what such a treaty would encompass.
329. Ms Nakamitsu said beginning negotiations for an FMCT would be an important step towards the elimination of nuclear weapons. Lord Browne said that progress on that agenda was “not ... possible until we are able to count, track and secure all such materials in such a way that creates confidence that” no material can be “diverted” to a nuclear weapons program.⁵⁷²
330. Ms Bell said Pakistan’s “problem” with the proposed treaty was that “other countries” (India) “have large stockpiles of existing fissile material”. Therefore banning future production without addressing “total stockpiles that currently exist” was “not fair to Pakistan.”⁵⁷³ Mr Kumar said a FMCT had “been blocked by the single-handed efforts of Pakistan, but “the actual issue” was “Pakistan’s disillusionment over the privileged treatment that India has gained through the [Nuclear Suppliers Group] waiver” that India received with the India–United States Civil Nuclear Agreement (discussed in Chapter 3).⁵⁷⁴

570 Weapons-grade fissile materials include highly enriched uranium (HEU) and plutonium.

571 Q 20

572 Written evidence from Lord Browne of Ladyton

573 Q 119 (Alexandra Bell)

574 Written evidence from A. Vinod Kumar (NPT0015)

331. Several witnesses thought that because Pakistan was likely to continue to object to a FMCT the prospect of beginning negotiations was low. Mr Kumar said the “prospects ... continue to be bleak as the factors that stymied [a FMCT] ... remain unchanged.”⁵⁷⁵

Box 11: A fissile material cut-off treaty

A fissile material cut-off treaty (FMCT) is a proposed treaty banning the production of highly-enriched uranium (HEU) and plutonium, two of the main components of nuclear weapons. Talks on the possible negotiation of an FMCT take place at the Conference on Disarmament, and began in 1995 through a Canadian initiative. As it operates on a consensus basis, progress towards an FMCT has stalled and formal negotiations have not begun.

Non-Nuclear Weapon States Parties to the Nuclear Non-Proliferation Treaty are already prohibited from acquiring fissile material for weapons.

The proposed FMCT would impose restrictions on existing nuclear possessor states, including those outside the NPT framework. The five NPT-recognised Nuclear Weapon States have all ceased production of HEU and plutonium, while the four non-NPT recognised nuclear-armed states have production of one or both ongoing.

Source: Arms Control Association, ‘Fissile Material Cut-off Treaty (FMCT) at a Glance’: <https://www.armscontrol.org/factsheets/fmct> [accessed 3 April 2019]

332. Some witnesses said other countries also did not support the FMCT. Ms Bell said that “a lot of countries are hiding behind Pakistan and are very happy to see a lack of progress.”⁵⁷⁶ Mr Miller included China alongside Pakistan in what he called “a successful ... effort for decades to block an FMCT”.⁵⁷⁷ Dr Zhao took a different approach, describing China as “generally supportive”,⁵⁷⁸ but said Beijing was reluctant to pressure Pakistan.⁵⁷⁹
333. As Pakistan is able to block negotiation of an FMCT in the Conference on Disarmament, some have suggested bypassing the Conference on Disarmament and moving the FMCT directly to the UN General Assembly, where individual states would not be able to prevent progress.
334. Dr Meier thought this would allow the possibility of getting “an agreement by all those states that now are committed to stopping the production of fissile material for weapons purposes.” He suggested that this approach would “flush out the real positions of the other countries that are now hiding behind Pakistan.”⁵⁸⁰ Medact also thought this was an option.⁵⁸¹
335. Ms Price said the Government took a different view: “we should keep it within the Conference on Disarmament”. This was “the only venue where all the countries that we want the treaty to cover participate.” Moving discussion of a fissile material cut-off treaty to the UN General Assembly “would risk negotiating a beautiful treaty but one that was not signed or agreed by ... the countries that we most need it to cover”. The Government

575 Written evidence from A. Vinod Kumar (NPT0015)

576 Q 119

577 Written evidence from Franklin Miller (NPT0042)

578 Q 125

579 Q 127

580 Q 117

581 Written evidence from Medact (NPT0014)

though that “if [countries] are involved in agreeing a treaty, ultimately they will be more invested in it and more likely to implement it.”⁵⁸²

336. Ms Nakamitsu acknowledged that moving negotiations to the General Assembly was an approach taken with other treaties, including the Arms Trade Treaty. However, when such a decision was taken on the Ban Treaty (discussed in Chapter 3) “it became ... a huge political issue”, that created a deep division between UN member states. “When it comes to issues so closely linked to matters of national security, consensus decision-making is still important, which is why many countries still consider the Conference on Disarmament to be an important platform.”⁵⁸³
337. Dr Zhao said China would be “very concerned” by this approach. It believed “that the UN General Assembly could be used by the United States as a means to build pressure on China and other Nuclear Weapon States. China prefers a consensus mechanism.”⁵⁸⁴
338. **The Conference on Disarmament is an important forum for non-proliferation and disarmament to be discussed by states, including those outside the Nuclear Non-Proliferation Treaty. The UK should consider every option to unblock the Conference. One option could be to call for negotiations on a fissile material cut-off treaty to be moved out of the Conference on Disarmament and into the UN General Assembly. While this would be likely to result in a treaty with less geographical coverage, a less well-subscribed to treaty would be better than no treaty at all, particularly if it included among its signatories the P5 countries which have ceased production of weapons-grade highly enriched uranium and plutonium. Moreover, the removal of this issue from the Conference on Disarmament would remove an obstacle to the forum agreeing a programme of work.**

Arms control agreements

339. BASIC described arms control as “a crucial tool in managing exceptionally dangerous situations”.⁵⁸⁵ Lord Browne thought it was disintegrating;⁵⁸⁶ Ms Bell thought “we are heading towards a world in which we not using this essential tool.”⁵⁸⁷
340. Dr Meier told us “We have been seeing a move backwards on arms control for a number of years now, and the imminent collapse of the INF treaty and the uncertain future of the New START treaty are clear indications of the lack of willingness of the great powers, generally speaking, to restrict their military potential, which is the core of arms control—particularly nuclear arms control.”⁵⁸⁸
341. The INF Treaty and New START were of particular concern to witnesses, as their collapse or expiry could cause an arms race of intermediate and

582 [Q 21](#) (Sarah Price)

583 [Q 10](#)

584 [Q 127](#)

585 Written evidence from the British American Security Information Council (BASIC) ([NPT0020](#))

586 Written evidence from Lord Browne of Ladyton ([NPT0044](#))

587 [Q 113](#)

588 [Q 113](#)

cruise missiles, intercontinental ballistic missiles and heavy bombers, all of which are currently banned or limited by the two treaties.⁵⁸⁹

The Intermediate-Range Nuclear Forces Treaty

342. Several witnesses referred to the possible collapse of INF Treaty as a significant challenge in global nuclear diplomacy. The INF Treaty and its possible collapse are explained in Box 12.
343. On 4 April 2019 the House of Commons Defence Committee published a report, *Missile Misdemeanours: Russia and the INF Treaty*.⁵⁹⁰

Box 12: Intermediate-Range Nuclear Forces Treaty

The Intermediate-Range Nuclear Forces (INF) Treaty was signed by the United States and the Soviet Union in December 1987 and entered into force in June 1988. It required the destruction of both sides' ground-launched ballistic and cruise missiles with ranges of between 500 and 5,500 kilometres, along with their launches and associated support equipment within three years of the treaty entering into force.

As a result of the INF Treaty, both sides eliminated all missiles covered by the agreement. A total of 2,692 missiles were eliminated by May 1991.

In July 2014 the United States first alleged that Russia was in violation of its INF Treaty obligations. The US Department of State repeated these allegations in published assessments in 2015, 2016, 2017 and 2018.

On 4 December 2018 the US Secretary of State, Mike Pompeo, announced that Russia had been found to be in “material breach” of the INF Treaty and that the United States would suspend its treaty obligations in 60 days if Russia had not returned to compliance. On 2 February 2019 the United States declared a suspension of its obligations and its intention to withdraw from the INF Treaty in six months, a notice period required by the original agreement. In response, Russian President Vladimir Putin announced that it would suspend its treaty obligations.

US withdrawal from the INF Treaty will come into effect on 2 August 2019.

Source: US Department of State, ‘Treaty Between The United States Of America And The Union Of Soviet Socialist Republics On The Elimination Of Their Intermediate-Range And Shorter-Range Missiles (INF Treaty)’: <https://www.state.gov/t/avc/trty/102360.htm> [accessed 3 April 2019]; Arms Control Association, ‘The Intermediate-Range Nuclear Forces (INF) Treaty at a Glance’: <https://www.armscontrol.org/factsheets/INFtreaty> [accessed 3 April 2019]

344. Many witnesses held Russia was responsible for the collapse of the treaty. The Government said:

“For a number of years, Russia has been in violation of the Intermediate-Range Nuclear Forces (INF) Treaty. Russia’s development and deployment of its SSC-8 cruise missile system amounts to a material breach of the INF Treaty ... We will continue to encourage Russia to engage seriously in bilateral discussions with the US. We believe the onus is now on Russia to demonstrate urgently that it will return to full compliance.”⁵⁹¹

589 Written evidence from Andrey Baklitskiy (NPT0046)

590 House of Commons Defence Committee, *Missile Misdemeanours: Russia and the INF Treaty* (Fifteenth Report, Session 2017–19, HC 1734)

591 Written evidence from the Foreign and Commonwealth Office (NPT0035)

345. Ms Shetty said that over a number of years the US had alleged that Russia was violating the treaty, and there had been “concern ... from European Allies”.⁵⁹² Ms Cox confirmed that “NATO fully supports the US decision to withdraw from the Treaty.”⁵⁹³
346. Dr Malygina said it was not only the US that had compliance concerns: “Russia had concerns as well and talked about those concerns within the procedures established by the INF.” Dr Malygina believed “the major consideration behind the ... US withdrawal from the INF was the intention to have freedom to deploy corresponding missiles in the north-west Pacific, aiming them against China.”⁵⁹⁴

Preserving or replacing the INF Treaty

347. Mr Baklitskiy said that following the US’s announcement on 2 February 2019 of its intention to withdraw from the INF Treaty, the parties had six months “to find [a] compromise”.⁵⁹⁵ Mr Koenders said the future of the INF looked “grim”, and that the treaty had “not received sufficient attention from ... political leadership in Europe and elsewhere.”⁵⁹⁶
348. Some witnesses thought diplomatic options to save the INF were “still on the table”, although Ms Bell said that ultimately “Russia will need to decide whether it is worth losing the INF Treaty to preserve ... one particular type of missile and a capability it has in other systems.”⁵⁹⁷ Mr Plant told us that the prospect of the INF Treaty being revived was “vanishingly unlikely”, so it was necessary to “adjust ourselves to a future where the INF [was] not part of our security structure.”⁵⁹⁸
349. Dr Meier described the US and NATO positions as demanding that “Russia has to come back into compliance” with the treaty.⁵⁹⁹ Dr Malygina characterised Washington’s position as not being “ready for constructive discussion”—the US did “not accept the proposals suggested by Russia”.⁶⁰⁰ Dr Meier, while accepting that “a lot of the Russian allegations [that the US is in violation of the Treaty] are unfounded,” disagreed with NATO’s unwillingness to “enter a reciprocal process to clear up those allegations.”⁶⁰¹
350. Mr Heisbourg thought Russia’s “violation of the INF Treaty [was] not solely about Europe and it may not even be principally about Europe.”⁶⁰² Mr Koenders believed neither Russia nor the United States were interested in saving the INF Treaty, because both sides thought the collapse of the deal would give it a “free hand” vis-à-vis China. This complicated the prospects of further negotiations, because if China were to be involved, so would Pakistan and India.⁶⁰³ Mr Heisbourg concluded that this complexity

592 [Q 28](#)

593 Written evidence from Jessica Cox ([NPT0039](#))

594 [Q 128](#)

595 Written evidence from Andrey Baklitskiy ([NPT0046](#))

596 [Q 146](#)

597 [Q 114](#)

598 [Q 44](#)

599 [Q 114](#)

600 [Q 131](#)

601 [Q 114](#)

602 [Q 87](#)

603 [Q 146](#)

reduced “the interest of both the Americans and the Russians in maintaining the INF Treaty”.⁶⁰⁴

351. He referred to China as “the elephant in the INF room”.⁶⁰⁵ It was

“the free rider in this treaty. It is not part of the treaty. It has been able to deploy massively, in the hundreds and thousands, ballistic missiles and cruise missiles where the distinction between nuclear and non-nuclear is absent ... The Chinese have been able to do this without violating any treaty, but of course this puts the Americans and the Russians in a rather awkward situation.”⁶⁰⁶

352. Ms Shetty took a different view, telling us the US did not need “ground-launched cruise missiles” of the sort it could develop outside of the INF Treaty, “in order to protect itself against the Chinese; it has advanced and strong air and sea capabilities.”⁶⁰⁷ Dr Zhao said “Chinese experts widely interpret the US withdrawal decision as an official declaration of an all-out military competition with and containment against China.”⁶⁰⁸

Multilateralising or regionalising the INF

353. One option to save the INF Treaty would be to ‘multilateralise’ it by encouraging other countries to sign up to a treaty limiting short and medium-range missiles systems.

354. Mr Heisbourg told us if “you want to manage some form of return to INF, you have to include the Chinese.”⁶⁰⁹ Dr Zhao said “the prospects for China to join the INF or some modified version of the treaty seem quite low at this moment”. China viewed its INF missiles as “critically important to its capability to deter a future US military intervention over Taiwan and in other regional security issues that are at the core of China’s territorial integrity and national security”. It perceived itself as “possessing a uniquely superior military capability in this area” and seemed “relatively confident of its long-term potential to outcompete the United States in a post-INF world”.⁶¹⁰ Ms Shetty agreed that China was “very unlikely” to agree to multilateralise the INF because most of its capabilities fell in the INF category.⁶¹¹

355. Dr Clegg said “any suggestion of extending or replacing ... the INF [Treaty] with a multilateral treaty ... involving China or other powers” must consider that “other powers including China have far fewer ... nuclear weapons than ... the US and Russia”.⁶¹²

356. Mr Heisbourg said including China would also create further questions: “‘What about India?’, ‘What about Pakistan?’, ‘What about Israel?’.”⁶¹³ Dr Meier said we would “have to put something on the table to encourage these countries—China, India, Pakistan and other countries that have INF

604 [Q 88](#)

605 [Q 88](#)

606 [Q 87](#)

607 [Q 28](#)

608 Written evidence from Dr Tong Zhao ([NPT0038](#))

609 [Q 88](#)

610 Written evidence from Dr Tong Zhao ([NPT0038](#))

611 [Q 28](#)

612 Written evidence from Dr Jenny Clegg ([NPT0021](#))

613 [Q 88](#)

systems—to enter such talks.” Dr Meier suggested that “banning nuclear-armed cruise missiles” might be one such proposal.⁶¹⁴

357. The Minister told us the Government had “no indication” from its “engagements with international partners” that any other country had “an appetite to consider joining the INF Treaty.” He added that “for any country to contemplate joining an amended or new treaty, Russia would first need to address its violations of the existing treaty.”⁶¹⁵
358. A second option was to regionalise the treaty—to ban deployments of INF missiles in Europe but allow them elsewhere. Mr Koenders had “doubts” about this approach, noting technical challenges with verifying such an agreement, because “these systems are mobile” and could be relatively easily moved.⁶¹⁶
359. Dr Meier was “sceptical about a regional approach”. Prohibiting the deployment of short and medium-range missiles in Europe only would serve to “push the problem towards Asia.”⁶¹⁷ The House of Commons Defence Committee concluded similarly, arguing that “restricting the treaty to Europe might well have a destabilising influence in Asia.”⁶¹⁸
360. Another problem with the prospect of regionalising the INF Treaty, according to the House of Commons Defence Committee, was that it would “reward Russian bad faith”. The Committee concluded “Russia should not be able to gain a more advantageous settlement through violating the treaty.”⁶¹⁹

Implications for Europe

361. Ms Bell said that, “Barring an intervention from President Trump and President Putin, it seems likely that the INF treaty will collapse in August.” This “could precipitate the reintroduction of a short-warning nuclear attack threat on capitals in Europe.”⁶²⁰
362. Ms Cox said it was “too early to tell what the possible end of the treaty will mean for nuclear risks in Europe”.⁶²¹ NATO was “in the process of evaluating how Russia’s development and deployment of intermediate-range ground-launched cruise missiles affect our deterrence and defence posture.”⁶²² One reason why Russia having already developed and deployed the SSC-8 missiles was “so problematic from a NATO perspective” was that “it reduces the warning time and we will not know whether we have been hit with a nuclear or conventional weapon until it happens. That lowers the threshold for nuclear use and makes responding, and figuring out how to respond, much more difficult in a time of crisis”.⁶²³
363. Dr James Cameron, Postdoctoral Research Associate, Department of War Studies, King’s College London, said the “demise” of the treaty “would have

614 [Q 114](#)

615 Written evidence from Sir Alan Duncan MP ([NPT0050](#))

616 [Q 146](#)

617 [Q 114](#)

618 House of Commons Defence Committee, *Missile Misdemeanours: Russia and the INF Treaty* (Fifteenth Report, Session 2017–19, HC 1734)

619 *Ibid.*

620 [Q 113](#)

621 Written evidence from Jessica Cox ([NPT0039](#))

622 [Q 94](#)

623 [Q 97](#)

a significant impact on UK security”. Future Russian weapons systems that would have been prohibited by the Treaty “would by their nature be aimed at targets in NATO Europe, most likely including the UK.” The deployment of US equivalent systems to “offset” Russia’s INF systems in Europe “would be politically divisive, with NATO member states splitting over the security benefits of the new weapons versus the prospect of a new arms race in Europe and/or the domestic political controversy involved in hosting new US weapons on their soil.”⁶²⁴

364. Ms Cox said that NATO Secretary General Jens Stoltenberg had “made it clear that [NATO does] not feel that reintroducing nuclear-armed ground-launched cruise missiles into the European theatre is an appropriate response” to Russian violations of the INF Treaty.⁶²⁵ Dr Malygina said that Russia “will not deploy land-based short-range and medium-range missiles either in Europe or in other regions of the world until the US deploys such missiles in the corresponding regions.”⁶²⁶
365. Mr Baklitskiy believed it would be possible for Russia and NATO to agree the “non-deployment ... of INF-range systems in Europe”. This could be through an agreement that was “politically binding instead of legally binding if necessary.”⁶²⁷ Mr Plant said “a presidential nuclear initiative”—rather than a treaty, which would require the approval of the US Senate—was the only option he could see.⁶²⁸
366. **We accept that Russia is in violation of the Intermediate-Range Nuclear Forces Treaty. Numerous attempts to resolve concerns about compliance have made no progress, which has led to the undesirable collapse of the treaty. The UK, along with its European partners, should use the ongoing discussions in NATO to promote approaches that could lead either to a revival of the treaty or, at least, to avoiding the deployment of such missiles in Europe by either party to the treaty.**

624 Written evidence from Dr James Cameron ([NPT0032](#))

625 [Q 95](#)

626 [Q 130](#)

627 Written evidence from Andrey Baklitskiy ([NPT0046](#))

628 [Q 44](#)

*The New Strategic Arms Reduction Treaty***Box 13: New Strategic Arms Reduction Treaty**

The New Strategic Arms Reduction Treaty (New START) was signed by the US and Russia in April 2010 and entered into force in February 2011. New START limits both sides to:

- 700 deployed intercontinental ballistic missiles (ICBMs), deployed submarine-launched ballistic missiles (SLBMs) and deployed heavy bombers equipped for nuclear armaments;
- 1,550 nuclear warheads on deployed ICBMs, deployed SLBMs and deployed heavy bombers equipped for nuclear armaments (each such heavy bomber is counted as one warhead toward this limit); and
- 800 deployed and non-deployed ICBM launchers, SLBM launchers and heavy bombers equipped for nuclear armaments.

New START replaced the 1991 Strategic Arms Reduction Treaty (START 1) and superseded the 2002 Strategic Offensive Reductions Treaty (SORT).

New START was agreed to remain in force for 10 years, unless both parties agreed to a one-off extension of no more than five years. New START is due to expire in February 2021 unless it is extended, in which case it could continue in force until February 2026.

Both the United States and Russia can verify compliance with New START. On 5 February 2018, the seven-year deadline when limits took effect, both sides announced they had both completed the reductions agreed in the treaty. The verification regime for New START includes 18 annual short-notice, on-site inspections.

Source: US Department of State, 'New START': <https://www.state.gov/t/avc/newstart/> [accessed 14 March 2019] and Arms Control Association, 'New START at a Glance': <https://www.armscontrol.org/factsheets/NewSTART> [accessed 14 March 2019]

367. There is a prospect that the New START, detailed in Box 13, might not be extended beyond its current term. Ms Bell said it “could be the next victim of a deteriorating US–Russian strategic stability relationship.”⁶²⁹
368. Witnesses considered the two parties’ approach to extending New START. Ms Bell said Russia had “produced a list of what it says are US compliance problems with the treaty”. She said “the fact that the Russians are regularly referencing these issues in the press” was “a cause for concern”.⁶³⁰ Dr Malygina said Russia’s position was “that the extension of the New START would require full and verifiable US compliance with the treaty provisions, and Russia can see that now that is not the case.”⁶³¹
369. Mr Miller said the US had “yet to take a position on the potential extension” of the treaty, so “hand-wringing over that treaty’s fate” was “premature”.⁶³² Mr Plant said “by all reports from the US”, Russia was in compliance with the treaty.⁶³³ Ms Bell said, however, said “rumours now abound” that the

629 Q 113

630 Q 113

631 Q 129

632 Written evidence from Mr Franklin Miller (NPT0042)

633 Q 44

“Trump Administration are not interested in extending [New START] for an additional five years”.⁶³⁴

370. Ms Cox said that NATO had been “clear that New START was, at the time it was signed, beneficial to strategic stability, and several NATO allies have repeated that loudly in recent weeks.” To the extent that there was an opportunity for the US and Russia to extend New START, “I think that NATO allies would welcome it”.⁶³⁵
371. The FCO said the Government supported the “continued implementation of New START”, stating that the treaty was “evidence that Russia can play by the rules, if it chooses to do so.” It encouraged “both sides to consider this a priority”.⁶³⁶
372. If New START were not extended, Mr Baklitskiy said the US and Russia would lose a “source of reliable information” about the structure of each other’s nuclear forces, and lose the “confidence building measures” provided by the treaty’s meetings under the Bilateral Consultative Commission.⁶³⁷
373. **The possible continuation of New START is a decision for the US and Russia, but the Government should make clear to the US Administration the value the UK attaches to this treaty being extended beyond 2021 and its importance to Euro–Atlantic security.**

The future of arms control

374. Lord Browne said that since the agreement of New START in 2010, there had been “no agreed process or agenda for next steps on nuclear disarmament and risk reduction between Russia and the United States.” He said that “arms control is failing; trust is being eroded precisely when it is most needed.”⁶³⁸
375. Mr Baklitskiy said there was a “low probability of new arms control agreements [being] negotiated and much less ratified” by the US and Russia. He cited six reasons:
- “Divergent issues of concern”;
 - “Mutual accusations of non-compliance”;
 - The “growing” importance of the nuclear forces of “third countries”;
 - “Development and deployment of new technologies”;
 - “Disillusionment with the prospects of arms control agreements improving ... relations”; and
 - A lack of a “sense of urgency on the part of decision makers in Washington and Moscow.”⁶³⁹

634 [Q 113](#)

635 [Q 95](#)

636 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

637 Written evidence from Andrey Baklitskiy ([NPT0046](#))

638 Written evidence from Lord Browne of Ladyton ([NPT0044](#))

639 Written evidence from Andrey Baklitskiy ([NPT0046](#))

376. Mr Miller called Russia “a serial violator of international arms control treaties and agreements”, citing nine alleged violations.⁶⁴⁰ Dr Malygina took a different view, telling us she was “sure” Moscow was “open to dialogue”, as arms control was “considered by Russia to be a critical element for preserving strategic stability and peace.”⁶⁴¹
377. Mr Miller said “Those who truly believe in arms control should, instead, turn their thinking as to how Russia’s bloated arsenal of non-strategic nuclear weapons can be captured in an arms treaty, perhaps one which succeeds New START and covers all US and Russian nuclear weapons.”⁶⁴²
378. Dr Roberts said Russia had “poisoned arms control as a security tool for the West” and even Moscow’s return to compliance with the INF Treaty and the extension of New START “would not change this fact”.⁶⁴³ There was “no bipartisan support” in the US “for new arms control with a Russia that is not in compliance with its current agreements.”⁶⁴⁴ Mr Plant said that “as a proponent of arms control”, he found “it hard to make the case that agreements that are not being complied with should be extended or should set a good tone for future discussions.”⁶⁴⁵
379. Lord Browne saw some fault on the side of the Trump Administration’s approach to arms control: it was “manifestly a problem if the most powerful nation in the world gets itself to the point where no one believes its word in the context of an international treaty.”⁶⁴⁶

Missile defence

Box 14: The Anti-Ballistic Missile Treaty

The Anti-Ballistic Missile Treaty was a treaty agreed in 1972 that prohibited the US and the Soviet Union from deploying nationwide defences against strategic ballistic missiles.

The US unilaterally withdrew from the treaty in 2002. Washington argued that the treaty stopped it from developing defences against non-state actors and ‘rogue states’.

Source: Arms Control Association, ‘The Anti-Ballistic Missile (ABM) Treaty at a Glance’: <https://www.armscontrol.org/factsheets/abmtreaty> [accessed 3 April 2019]

380. Dr Cameron told us that “difference between ... Washington and Moscow on missile defence” placed “the long-term future of the US–Russia arms control regime in doubt.”⁶⁴⁷ Matt Korda, Research Associate, Nuclear Information Project, said the “US decision to withdraw from the [Anti-Ballistic Missile] ABM Treaty, and its subsequent efforts to establish a missile defence architecture in the United States and Europe” had “certainly” been “a major turning point in US–Russian relations.” Russia was concerned that

640 Written evidence from Mr Franklin Miller (NPT0042); Mr Miller cited “the Helsinki Final Act; the Budapest Agreement; the Istanbul Accord; the George H.W. Bush–Gorbachev Presidential Nuclear Initiative; the George H. W. Bush–Yeltsin Presidential Nuclear Initiative; the Chemical Weapons Convention; the Open Skies Agreement; the Vienna Document; and the INF Treaty.”

641 Q 128

642 Written evidence from Mr Franklin Miller (NPT0042)

643 Written evidence from Dr Brad Roberts (NPT0029)

644 Q 44 (Tom Plant)

645 Q 44

646 Q 56

647 Written evidence from Dr James Cameron (NPT0032)

while the US has made “statements that its missile defence architecture was only oriented towards” so-called “rogue nations”—namely North Korea and Iran—these claims “may not hold indefinitely.” The United States’ 2019 Missile Defence Review (MDR) included “an explicit reorientation of US missile defences to address Russian and Chinese hypersonic threats.”⁶⁴⁸

381. This represented a “conspicuous shift in longstanding [US] missile defence policy.” President Putin had “made it crystal clear that Russia’s national modernisation will continue, in an attempt to counter US improvements to its missile defences” and that the United States has made an “explicit pledge” to not accept constraints on its development of deployment of missile defence capabilities, so it seemed “highly unlikely that [President] Putin would agree to any further limitations on Russia’s strategic arsenal”.⁶⁴⁹
382. Missile defence is not just a factor in US–Russia relations. Dr Zhao said it had “produced a lot of disputes” between China and the US.⁶⁵⁰ Dr Sultan said ballistic missile defence was also a factor in India–Pakistan relations.⁶⁵¹

Internationalising arms control

383. As discussed in relation to the INF Treaty earlier in this chapter, and in the context of nuclear risk and deterrence in Chapter 2, several witnesses discussed the challenge of arms control in a more multipolar world.
384. Ms Bell said she did not think of the “current state” as a “decline” in arms control, but rather a “transformation of how we are going to have to deal with arms control and non-proliferation in the future.” As part of this transformation it would be necessary to think of how to “deal with an asymmetric set-up of various different countries in an agreement”. This would not “necessarily” involve “trading numbers of warheads for numbers of warheads or numbers of delivery systems for that”, but rather “asymmetric trades ... such as reductions in exchange for transparency and accounting of particular numbers and agreements not to move certain systems”. This was a “whole-of-government” problem, and would require “help” from legislatures, and should not “simply be left to the Ministry of Defence and Ministry of Foreign Affairs” in any country.⁶⁵²
385. Dr Cameron said that “As China grows in importance, these dilemmas will only become more significant.”⁶⁵³ Dr Zhao said for “the option of exploring arms control co-operation with the United States” was “anything but popular among the Chinese expert community”. Chinese experts interpreted the US Administration’s references to China in its decision to withdraw from the INF Treaty (discussed above) as an “official declaration of an all-out military competition with and containment against China”.⁶⁵⁴
386. More broadly, he said “Many Chinese experts ... have a cynical view towards arms control; they see it as an extension of the struggles among big powers”. China had “not embraced the view that arms control can be used

648 Written evidence from Matt Korda ([NPT0041](#))

649 Written evidence from Matt Korda ([NPT0041](#))

650 Written evidence from Dr Tong Zhao ([NPT0038](#))

651 Written evidence from Dr Adil Sultan Muhammed ([NPT0032](#))

652 [Q 116](#)

653 Written evidence from Dr James Cameron ([NPT0032](#))

654 Written evidence from Dr Tong Zhao ([NPT0038](#))

as a useful instrument to advance China’s own security”.⁶⁵⁵ Dr Leveringhaus said this related to the historical context: “During the Cold War, China considered arms control destabilising, as a way for the then superpowers to cement nuclear superiority relative to other states, including China”. It had consistently resisted participation in multilateral arms control while the United States and Russia maintain such large nuclear arsenals compared to other nuclear armed states”.⁶⁵⁶

387. She said more recent Chinese statements on its view of multilateral arms control were not available, but “Chinese nuclear experts have offered helpful, though unofficial, conditions in recent years”. These included: “a unilateral guarantee to keep nuclear weapons off-alert; a unilateral declaration of an official moratorium on fissile material production; and a declared freeze on new nuclear weapons production”.⁶⁵⁷
388. **The world is dangerously close to an era without arms control, which would increase the risk of nuclear use. We urge the Government to support initiatives, including trust and confidence building measures, to achieve new arms control agreements in the context of a more multipolar world.**

Technological developments and arms control

389. Dr Meier said “new technologies” (as discussed in Chapter 2) were a factor in “complicating nuclear arms control”. First, some new technologies were “a way to equalise military advantages for some of the threshold states”,⁶⁵⁸ which complicated the picture. Second, “the US in particular but also other great powers want to maintain military dominance in all domains”. That “in itself” was “driving arms races”, which made it “very difficult to re-engage on arms control, because there is no agreement on whether we should do this separately on the different issues that are before us in nuclear arms control and in new technologies altogether”.⁶⁵⁹ Mr Baklitskiy referred to “hypersonic, space-based” and “anti satellite” technologies as “difficult to incorporate” in arms control, in part because they are “new” and also “because parties don’t want to lose an edge”.⁶⁶⁰
390. **The future of arms control is challenged by the emergence of certain new technologies. However, that it is difficult is no excuse not to try to develop arms control in the context of these technologies. Arms control agreements have overcome technological change in the past, and there is no inherent reason why this cannot be done again.**

655 [Q 121](#) (Dr Zhao)

656 Written evidence from Dr Nicola Leveringhaus ([NPT0032](#))

657 Written evidence from Dr Nicola Leveringhaus ([NPT0032](#))

658 Nuclear threshold states are those states with the likely technological capability to quickly develop nuclear weapons.

659 [Q 133](#)

660 Written evidence from Andrey Baklitskiy ([NPT0046](#))

CHAPTER 5: THE 2020 NPT REVIEW CONFERENCE

391. The next NPT Review Conference (RevCon) is scheduled for 27 April to 22 May 2020. It will mark the 50th anniversary of the entry into force of the NPT. Dr Grossi said that this was “a good opportunity to take stock of where we are, what this instrument gives us with the rule to conduct our activities in this field.”⁶⁶¹ Ms Nakamitsu said the RevCon was “an opportunity for States Parties to review and to make sure that the resilience and the relevance of the NPT in the 21st century will continue.”⁶⁶²

Previous Review Conferences

392. The Final Document of a Review Conference must be agreed by consensus. Mr Kmentt said that in 1995, 2000 and 2010 “it was not possible to find an agreement” between the States Parties but “creative diplomatic language” had been used “to find formulations to go around” the disagreements.⁶⁶³

393. Mr Plant said that in the run-up to the 2015 NPT RevCon there had been “a substantial diplomatic conflict of viewpoints on disarmament progress, a WMD-free zone in the Middle East, and so on”, which “led ... to failure to agree a consensus outcome document at the Review Conference”.⁶⁶⁴ Dr Burford said that “debates at the 2017 and 2018 Preparatory Committee meetings” had been “more fractious and antagonistic than in 2015”.⁶⁶⁵

394. Ms Shetty said that while agreement of a Final Document in 2020 was “an arbitrary litmus test of a successful Review Conference ... it would point to at least a shared view that the NPT was worth adhering to and sustaining”.⁶⁶⁶ BASIC said that failure to agree a Final Document would be a “symbolic blow” to the regime.⁶⁶⁷ A “back-to-back failure of two such conferences ... could lead to the undermining of the treaty’s legitimacy, support and effectiveness”.⁶⁶⁸

395. However, witnesses said the success of a RevCon should not be measured only by whether a Final Document was agreed.⁶⁶⁹ Dr Elbahtimy said that while “it might be tempting to think that the failure of the 2015 Review Conference means that the treaty is in dire straits”, the “reality” was “that it has difficulties”.⁶⁷⁰ Mr Plant said there had “been no substantial changes to the global nuclear landscape as the result of that failure in 2015”.⁶⁷¹

661 [Q 134](#)

662 [Q 3](#)

663 [Q 89](#)

664 [Q 35](#) (Tom Plant)

665 Written evidence from Dr Lyndon Burford ([NPT0032](#))

666 [Q 34](#)

667 Written evidence from BASIC ([NPT0020](#))

668 [Q 34](#) (Shatabhisha Shetty)

669 [Q 57](#) (Dr Elbahtimy), [Q 34](#) (Shatabhisha Shetty), written evidence from Dr Brad Roberts ([NPT0029](#)) and written evidence from PAX ([NPT0018](#))

670 [Q 57](#)

671 [Q 35](#)

The UK's influence and approach

Challenges and opportunities for the 2020 Review Conference

Challenges

396. Witnesses said that many of the challenges to the NPT already discussed in this report—the absence of four nuclear possessor states from the treaty, the dissatisfaction of Non-Nuclear Weapon States about progress on the disarmament pillar, leading to the signature of the Ban Treaty, failure to develop a Middle East WMD-Free Zone, and the health of arms control agreements between the US and Russia—would be challenges for the 2020 RevCon.⁶⁷²
397. **The 2020 Review Conference is likely to be challenging for the Nuclear Non-Proliferation Treaty, and will be affected by the global security situation. In particular, the Review Conference will be likely to be tested by the collapse of important non-proliferation and arms control agreements, and the perception of wider threats to the rules-based international order.**
398. **The Nuclear Weapon States must, in good faith, address the dissatisfaction of Non-Nuclear Weapon States at the 2020 Review Conference, including by showing a demonstrable commitment to the disarmament pillar of the NPT.**
399. **The Government should make every effort to ensure that a Final Document to the 2020 Review Conference of the Nuclear Non-Proliferation Treaty is agreed and avoid a situation such as that in 2015 when the UK was one of only three countries which prevented consensus being reached.**

Opportunities

400. Ms Nakamitsu suggested that, in the 50th year of the treaty, States Parties might wish to take advantage of making a “political message” by holding a ministerial meeting at RevCon.⁶⁷³ Ms Shetty welcomed this idea, and suggested the UK should be represented by the Secretary of State for Foreign and Commonwealth Affairs.⁶⁷⁴
401. A second opportunity at RevCon, suggested by Ms Nakamitsu, was to include discussions on the potential link between nuclear weapons and “science and technology” (discussed in Chapters 2 and 4).⁶⁷⁵ Dr Elbahtimy, however, said the NPT regime was “burdened with the agendas that it already has”. The “difficulty of charting a way forward among these different disagreements” meant that “the cyber issue has not been put formally on to the NPT agenda”.⁶⁷⁶
402. Ms Price supported the idea of discussing, and seeking agreement on, the “threats to the regime” posed by technological developments. The UK did

672 [Q 79](#) (Rear Admiral John Gower), [Q 136](#) (Dr Grossi), [Q 3](#) (Izumi Nakamitsu), [Q 63](#) (Dr Elbahtimy), and written evidence from BASIC ([NPT0020](#))

673 [Q 3](#)

674 [Q 34](#)

675 [Q 3](#)

676 [Q 60](#)

not have proposals on this issue, but “the States Parties should be talking about this”.⁶⁷⁷

403. **We recommend that the UK, as one of the three depositary powers, should mark its political support for the Nuclear Non-Proliferation Treaty on its 50th anniversary by being represented at a high level. The Government should consider representation by the Secretary of State for Foreign and Commonwealth Affairs at the 2020 Nuclear Non-Proliferation Treaty Review Conference. It should also support High Representative Nakamitsu’s initiative to hold a ministerial meeting in advance of RevCon, by indicating the willingness of the Secretary of State for Foreign and Commonwealth Affairs to attend such a meeting.**
404. **The UK should propose that the impact of new technologies should be considered by both Nuclear Weapon States and Non-Nuclear Weapon States at the 2020 RevCon of the Nuclear Non-Proliferation Treaty. Ahead of this conference, the Government should set out its ideas on how to manage the nuclear risks associated with new technologies.**

Objectives for RevCon

405. The FCO said the UK’s objectives for RevCon were “to remind the international community that the NPT continues to be an effective and vital part of the international security architecture; and to highlight the UK’s own strong track record promoting disarmament, non-proliferation, and peaceful uses of nuclear energy, as a responsible Nuclear Weapon State.”⁶⁷⁸
406. Ms Price said the UK would “focus on encouraging other countries to look at some of the very basic building blocks that are needed ... to work towards disarmament”, such as the UK’s work on verification (discussed in Chapter 3).⁶⁷⁹

Influence

407. Sir Simon Gass was “not completely convinced that there is a big initiative that the UK could float that would substantially transform the non-proliferation agenda”.⁶⁸⁰ Mr Schulte and Professor Wheeler said the UK’s contribution would “have to be largely through influence and persuasion, often behind the scenes” with France and the US, NATO, the P5, and “the NPT as a whole”. They cautioned that “UK governments must resist grandiosity; anyone with experience of international nuclear negotiations and alliance consultations will realise that a country with perhaps 2 per cent of the world’s nuclear weapons is simply not going to overturn others’ calculations”.⁶⁸¹
408. Mr Plant said the UK had “attempted to show leadership” through a unilateral reduction in its nuclear weapons.⁶⁸² Dr Ritchie acknowledged this was “a pretty positive record” compared to the four other nuclear-weapons states.⁶⁸³

677 [Q 15](#)

678 Written evidence from the Foreign and Commonwealth Office ([NPT0035](#))

679 [Q 153](#)

680 [Q 74](#)

681 Written evidence from Mr Schulte and Professor Wheeler ([NPT0030](#))

682 [Q 38](#)

683 [Q 107](#)

409. Mr Plant said that these reductions had been undertaken at a time when “the norm was towards disarmament” and it had seemed “that reinforcing that would be sensible”. He had “a bugging question: what is the utility of UK unilateral reductions in stimulating larger nuclear powers, who rely more heavily on nuclear weapons, to disarm? How does our unilateral disarmament drive that? I do not think it does.” Further cuts would put into question whether it had “a minimum credible deterrent ... to trade-off against others”.⁶⁸⁴

UK approach

410. Professor Evans said the UK “may be the least emotionally and intellectually committed of all the present nuclear armed states to its nuclear armoury” which gave it “a potentially critical role to play in ... intergovernmental advocacy”.⁶⁸⁵ Dr Ritchie said the UK liked “to paint itself as a responsible Nuclear Weapon State and the most forward-leaning of the five on disarmament”. However, “in the context of NPT diplomacy”, there was “not much to separate the UK and the US”, a point also made by Mr Kumar.⁶⁸⁶

411. Ms Shetty said that “in the absence, frankly, of US leadership”, however, the 2020 RevCon was “a real opportunity for the UK to be a leader in disarmament and non-proliferation”.⁶⁸⁷

412. **The UK has a strong track record of disarmament—having unilaterally reduced its arsenal to a single strategic system—and has been actively engaged in counter-proliferation work, including talks with Iran. In the run up to the 2020 Review Conference, it should set out a clear vision for future work towards disarmament, and seek to influence the Nuclear Weapon States to fulfil their obligations under the three pillars of the NPT.**

UK leadership as the chair of the P5 process

413. The P5 process is set out in Chapter 3. Witnesses suggested ways in which the UK could improve the P5 process when it assumed the chair in May 2019.

414. First, Dr Zhao said it could suggest that the P5 process play a role in managing nuclear tensions, by holding “more candid discussions and in-depth exchanges” between the five countries. He suggested establishing dedicated P5 working groups and research projects, engaging experts to deliver this work.⁶⁸⁸

415. For example, the P5 process could look at countries’ doctrines and postures⁶⁸⁹ (discussed in Chapter 2). Rear Admiral Gower said there was a “strong reason for there to be discussion within the P5 ... as to whether the continued ambiguity of [NATO’s] posture, and indeed the UK posture, contribute to deterrence”, or whether this increased the chance of misinterpretation.⁶⁹⁰

416. Mr Baklitskiy and Ms Shetty suggested the UK could push for greater transparency between the P5 members.⁶⁹¹ Mr Baklitskiy said this could

684 [Q 38](#)

685 Written evidence from Professor Gareth Evans ([NPT0036](#))

686 [Q 107](#); written evidence from A. Vinod Kumar ([NPT0015](#))

687 [Q 34](#)

688 Written evidence from Dr Tong Zhao ([NPT0038](#))

689 [Q 31](#) (Shatabhisha Shetty)

690 [Q 84](#)

691 Written evidence from Andrey Baklitskiy ([NPT0046](#)) and [Q 34](#) (Shatabhisha Shetty)

include regular reporting of the numbers of strategic weapons similar to New START reporting (see Chapter 4) as “a confidence building measure.”⁶⁹² Ms Shetty said they could “possibly share that with non-nuclear-weapons states”.⁶⁹³

417. Second, Mr Koenders said the UK could play an “instrumental” role in the P5 “to get the discussion going” on how to address short-range ballistic missiles (the INF Treaty is discussed in Chapter 4).⁶⁹⁴

418. Third, Mr Ingram said the UK could seek to encourage the nuclear-weapons states “to show some progressive moves”⁶⁹⁵ and signal strongly “that nuclear weapons are not with us for ever”.⁶⁹⁶ Measures suggested by witnesses included:

- Providing stronger negative security assurances to Non-Nuclear Weapon States;⁶⁹⁷
- Considering making declarations of sole purpose—to make clear that “the only reason for nuclear weapons is to deter the use of nuclear weapons”;⁶⁹⁸
- Considering freezing the number of missiles⁶⁹⁹—the UK “ought to be able to sign up to quite easily, and we should be proposing that to other nuclear-armed states”;⁷⁰⁰
- Advocating that other states adopt credible minimum deterrents⁷⁰¹—the UK “should be talking to both the Americans and the Russians about them moving their policy in that sort of direction”;⁷⁰²
- Considering reducing the alert status of the UK’s nuclear forces—Mr Kmentt said this “would be an extremely important step to demonstrate more distance from the actual use of nuclear weapons” and “would be seen as a very important risk-reduction measure by the Non-Nuclear Weapons States”;⁷⁰³
- Making a no first use commitment and beginning P5 dialogue on this issue;⁷⁰⁴ and
- Making a change to the UK’s declaratory policy “to one of last resort”.⁷⁰⁵

692 Written evidence from Andrey Baklitskiy ([NPT0046](#))

693 [Q 34](#)

694 [Q 151](#)

695 [Q 31](#)

696 [Q 34](#) Rear Admiral John Gower said that the UK “might be in a position over the next 10 years to influence” such moves, because it was two-thirds of the way through a cyclical expenditure in its nuclear deterrent. [Q 81](#)

697 [Q 31](#) (Paul Ingram) and written evidence from BASIC ([NPT0020](#))

698 [Q 34](#) (Paul Ingram) Dr Zhao also made this suggestion. Written evidence from Dr Tong Zhao ([NPT0038](#))

699 [Q 34](#) (Paul Ingram), written evidence from PAX ([NPT0018](#)) and written evidence from the Campaign for Nuclear Disarmament ([NPT0022](#))

700 [Q 34](#) (Paul Ingram)

701 Rear Admiral John Gower, Mr Ingram and Dr Zhao said the UK was well placed to make this case, having reduced to a single strategic system. [Q 27](#) (Paul Ingram), [Q 84](#) (Rear Admiral John Gower), and written evidence from Dr Tong Zhao ([NPT0038](#)) Also see written evidence from Dr Sarah Tzinieris ([NPT0032](#))

702 [Q 34](#) (Paul Ingram)

703 [Q 93](#) (Alexander Kmentt) and [Q 112](#) (Dr Ritchie). Dr Ritchie suggested undertaking a study on the modalities of de-alerting the UK’s nuclear weapons.

704 Written evidence from Dr Tong Zhao ([NPT0038](#)) and from BASIC ([NPT0020](#))

705 [Q 112](#) (Dr Ritchie)

419. Fourth, Ms Berger suggested the UK should encourage more outward engagement by the P5 during its chairmanship.⁷⁰⁶ It could find ways to more meaningfully engage Non-Nuclear Weapon States⁷⁰⁷ and NGOs in the P5 process.⁷⁰⁸
420. Ms Shetty said in the past the P5 format had been used to “engage with other Non-Nuclear Weapon State groupings”. Civil society and Non-Nuclear Weapons States had been invited to “side meetings after the P5 had met”, but “more could be done”.⁷⁰⁹ Dr Tzinieris suggested the UK should enhance co-ordination between the P5 and the Non-Aligned Movement, the New Agenda Coalition and the Nonproliferation and Disarmament Initiative.⁷¹⁰ Ms Fihn said that proponents of the Ban Treaty “would love to be invited to talk to the P5 members about the treaty and our views on nuclear weapons” at the next P5 conference in London.⁷¹¹
421. Mr Franklin said that while Non-Nuclear Weapon States could not be “directly” involved in the conference “because it is important that we can carry out our P5 dialogues safely”, the UK was “discussing a number of avenues to ensure a better reflection and appreciation of that conversation on what is happening with the Non-Nuclear Weapon States.”⁷¹²
422. Some witnesses said this should also extend to softening the approach of the P5 to the Ban Treaty (discussed in Chapter 3). Dr Johnson said the P5 had “to be seen to be taking a constructive attitude and not just trying to undermine and attack it ... Nothing can be gained by turning that into a fight in 2020.”⁷¹³ Dr Grossi requested that proponents of the Ban Treaty keep issues relating to it out of the RevCon, and that critics of the Ban Treaty “abstain from using the NPT platform for this debate”.⁷¹⁴
423. Fifth, Rear Admiral Gower said the UK “could take a lead in advocating” at RevCon that discussions be held with nuclear possessor states outside the NPT. Such talks “would be a “significant means to reduce ... risks of misinterpretation and miscalculation”. However, he thought this suggestion might be best received if proposed by a Non-Nuclear Weapon State, “preferably one that is also a signatory to the Ban Treaty”, with support from the Nuclear Weapon States.⁷¹⁵
424. Sixth, Dr Grossi said the P5 needed “to show engagement” with him, as the President-designate of the 2020 RevCon, “in the run-up to and during

706 [Q 75](#)

707 [Q 31](#) (Shatabhisha Shetty)

708 [Q 105](#) (Beatrice Fihn)

709 [Q 31](#)

710 Written evidence from Dr Sarah Tzinieris ([NPT0032](#)) The New Agenda Coalition is a group of geographically diverse, middle power countries (Brazil, Egypt, Ireland, Mexico, New Zealand, and South Africa). The Nuclear Threat Initiative, ‘New Agenda Coalition’: <https://www.nti.org/learn/treaties-and-regimes/new-agenda-coalition/> [accessed 13 March 2019] The Nonproliferation and Disarmament Initiative is a ministerial-level group of states within the framework of the NPT (Australia, Canada, Chile, Germany, Japan, Mexico, the Netherlands, Nigeria, the Philippines, Poland, Turkey, and the United Arab Emirates). The Nuclear Threat Initiative, ‘Nonproliferation and Disarmament Initiative’: <https://www.nti.org/learn/treaties-and-regimes/non-proliferation-and-disarmament-initiative-npdi/> [accessed 13 March 2019]

711 [Q 105](#)

712 [Q 164](#)

713 [Q 63](#)

714 [Q 139](#)

715 [Q 84](#). Dr Grossi said that India and Pakistan were “observers who are quite close to the process”. He “often” interacted with them and expected this to increase before the 2020 RevCon. [Q 136](#)

the conference”. He would “bring to them the sentiment of the many and will try to work with them in ways that will ... preserve the integrity and usefulness of the treaty for us all”. The P5 had a “responsibility in staying engaged” and be “prepared to listen”. He intended to “consult with the P5 as frequently and intensely as I can” and hoped to work with the UK as chair of the P5 process.⁷¹⁶

425. **Assuming the chair of the P5 process from May 2019 presents a significant opportunity for the UK. It should encourage the other Nuclear Weapon States to use the P5 process for more substantive discussions, and as a forum to promote greater transparency between them.**
426. **As the only Nuclear Weapon State to have adopted a credible minimum deterrent, the UK should advocate reducing reliance on nuclear weapons, and outlining the conditions for moving towards credible minimum deterrence.**
427. **The Government should consider proposing that Nuclear Weapon States’ doctrines and postures, and increasing transparency through regular reporting on strategic weapons numbers, should be on the agenda for the next P5 conference. Such discussions could be a valuable contribution to transparency and should reduce the risk of miscalculation.**
428. **The Government should consider clarifying its nuclear posture at the 2020 NPT Review Conference and encouraging other members of the P5 to take similar steps. This could include providing clearer negative security assurances, considering declarations of sole purpose and a no first use commitment, and further work on de-alerting. The objective should be to reduce the possibility of misperceptions and misunderstanding during a crisis.**
429. **The UK should use its chairmanship of the P5 group to encourage a more constructive tone and approach by Nuclear Weapon States towards advocates of disarmament at the 2020 RevCon. It should explore further engagement between the P5 and Non-Nuclear Weapon States (NNWS) on the disarmament agenda to bridge the gap between the P5 and signatories to the Ban Treaty. It should ensure that both NNWS and civil society are invited to engage in parts of any P5 meetings led by the UK.**
430. **Recent tensions between India and Pakistan demonstrate that it will be impossible to reduce the risk of nuclear use without engaging all nuclear possessor states. The UK should propose inviting India and Pakistan to meet the P5 on the margins of the next P5 conference. India and Pakistan have been included in discussions in the past, and this would be an opportunity to hold dialogue with the aim of reducing tensions and increasing understanding.**
431. **The Government should continue to engage constructively with the President-designate to the 2020 Review Conference, and seek fully to engage the members of the P5 in preparations for this conference.**

716 **Q 143.** Dr Burford suggested the UK should “offer to co-chair a multilateral NPT working group” on “Responsibilities under Article VI”. Written evidence from Dr Lyndon Burford ([NPT0032](#))

432. **The UK's contribution to disarmament verification was widely welcomed by witnesses. It should continue this work, and be prepared to increase its wider funding for research on non-proliferation and disarmament.**

The 'Creating the Environment for Nuclear Disarmament' initiative

433. Dr Roberts said the UK could work with the US and NATO to “exercise leadership in the international debate about the future scope and objectives of nuclear disarmament diplomacy”. He drew attention to the US's ‘Creating the Environment for Nuclear Disarmament’ initiative in this regard⁷¹⁷ (see Box 15).

Box 15: The US ‘Creating the Environment for Nuclear Disarmament’ initiative

At the 2018 PrepCom, Dr Christopher Ford, Assistant Secretary, Bureau of International Security and Nonproliferation, US Department of State, said the US had:

“begun to articulate a new approach to disarmament diplomacy designed to seek ways to increase the odds of achieving a peaceful and stable disarmed world ... by focusing upon the very ‘easing of international tension and ... strengthening of trust between States’ that the Preamble of the NPT explicitly envisions ‘in order to facilitate’ disarmament. Perhaps one could call this the ‘CCND Approach’ ... to stand for ‘creating the conditions for nuclear disarmament’ negotiations.”

This approach was “intended to point the way to an international disarmament agenda for all nations that is faithful to the ideals expressed in the NPT, while yet acknowledging, and honestly grappling with, the problem of geopolitical conditions in ways that the international disarmament community has rarely hitherto done.”

He said “some continuities in our thinking about what conditions would need to look like” were:

- “Robust and reliable nonproliferation assurances”;
- “Successful curtailment of other WMD threats”;
- “Verification of disarmament”;
- “Stability after ‘zero’”; and
- “Making “zero” desirable”.

In December 2018 the US launched the ‘Creating the Conditions for Nuclear Disarmament Working Group’ initiative, to implement this work.⁷¹⁸ In March 2019, this work was renamed as the ‘Creating the Environment for Nuclear Disarmament’ initiative.

Source Dr Christopher Ford, ‘Creating the Conditions for Nuclear Disarmament: A New Approach’ (17 March 2018): <https://www.state.gov/t/isn/rls/rm/2018/279386.htm> [accessed 15 March 2019]

717 Written evidence from Dr Brad Roberts (NPT0020)

718 Dr Christopher Ford, ‘The P5 Process and Approaches to Nuclear Disarmament: A New Structured Dialogue’ (10 December 2018): <https://www.state.gov/t/isn/rls/rm/2018/288018.htm> [accessed 22 March 2019]

434. Ms Shetty said the initiative showed “some willingness on the part of the US, at least in rhetorical terms, to ... find ways in which disarmament can be brought about”. The step-by-step process and the CCND seemed “complementary”.⁷¹⁹ Dr Roberts said the CCND was “a logical follow-on” from longstanding US policy.⁷²⁰ Ms Price said the UK was interested in the initiative as “one part of the step-by-step process”.⁷²¹
435. BASIC said the initiative was “to be welcomed”, but it was “not an alternative to finding concrete arms control measures that can be implemented today”.⁷²² Dr Meier thought “Europeans should engage” but “they should make sure that this does not turn basically into a self-serving attempt to deflect disarmament pressures”.⁷²³ He suggested it might be an opportunity to engage with nuclear possessor states that are not States Parties to the NPT.⁷²⁴
436. Mr Plant was sceptical: “It looks more like a presentation exercise to me.” He did not think it was a change in US policy.⁷²⁵ Dr Zhao said that in focusing “exclusively on how the current international security environment should be improved first ... before nuclear disarmament could take place” the initiative “downplays the effect of the continuous existence of nuclear weapons on complicating the international security environment.”⁷²⁶
437. Ms Bell said the Creating the Environment for Nuclear Disarmament initiative represented “a small hope that the United States is aware of its NPT Article 6 commitments and does not want to show up at the 2020 NPT Review Conference being unable to show that it has done any work in trying to further progress in disarmament.”⁷²⁷
438. **The US’s ‘Creating the Environment for Nuclear Disarmament’ initiative could be a helpful part of the step-by-step process towards eventual disarmament. We recommend that the UK should engage fully with the initiative, to seek to make it a constructive forum for engagement between Nuclear Weapon States and Non-Nuclear Weapon States.**

719 [Q 30](#)

720 Written evidence from Dr Brad Roberts ([NPT0029](#))

721 [Q 18](#)

722 Written evidence from BASIC ([NPT0020](#))

723 [Q 116](#)

724 [Q 118](#)

725 [Q 46](#)

726 Written evidence from Dr Tong Zhao ([NPT0038](#))

727 [Q 115](#)

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The causes of nuclear risk

1. The level of nuclear risk has increased, in particular since the decline in relations between Russia and the West from 2014. There is a danger that misunderstanding, miscalculation or mistakes could lead to the use of nuclear weapons. Steps to manage and reduce this risk should be of the highest priority for the Government. (Paragraph 21)
2. While preventing the proliferation of nuclear capabilities to Non-Nuclear Weapon States must remain a priority, the principal cause of increased risk is the continued and at times expanding reliance of nuclear possessor states on their nuclear weapons. (Paragraph 22)
3. The world is increasingly multipolar, which means approaches to managing nuclear risk cannot focus only on the US, NATO and Russia. Efforts must also include states such as China, as well as nuclear possessor states outside the Non-Proliferation Treaty. (Paragraph 30)
4. Notwithstanding current tensions, the Government should be prepared to talk to Russia about nuclear strategic stability. The risks of miscommunication, misperception and miscalculation are too grave to allow other aspects of Russia's behaviour to preclude talks on nuclear issues. (Paragraph 35)
5. It is also important that NATO has a dialogue with Russia on nuclear issues as part of an effort to take all steps to reduce the risk of nuclear use. One way of doing this would be to reinvigorate dialogue within the NATO-Russia Council. (Paragraph 36)
6. We do not regard such contacts, which took place even at the height of the Cold War, as constituting 'business as usual'. (Paragraph 37)
7. We welcome international efforts to increase the security of nuclear and radioactive materials and thus reduce the risk posed by non-state actors. The security of nuclear stockpiles and measures to prevent proliferation must remain a priority for the Government. (Paragraph 42)
8. Nuclear possessor states are developing more sophisticated capabilities, utilising new technologies, and there is increasing 'entanglement' between conventional and nuclear weapons. These developments increase the possibility of miscalculation and the speed of decision-making, both of which could result in an escalation of hostilities. (Paragraph 65)
9. The Government should review the resilience of the UK's nuclear deterrent and associated systems in the context of emerging technologies, in particular cyber capabilities. It should report its key findings to Parliament. (Paragraph 66)
10. Reckless nuclear rhetoric in an era of digital communications potentially increases the risk of misperception and thus nuclear use. (Paragraph 70)
11. We are concerned by the lack of understanding by nuclear possessor states of their respective nuclear doctrines and declaratory policies. Misunderstanding of these policies could increase the risk of use of nuclear weapons. (Paragraph 86)

12. The importance of the principle that “a nuclear war cannot be won and must never be fought” has not diminished. The Government should publicly endorse this principle and encourage all nuclear possessor states to do the same. (Paragraph 88)

The NPT and the wider non-proliferation regime

13. The UK should stand by its commitment, as a signatory of the Nuclear Non-Proliferation Treaty and one of its three depositary powers, to implementing commitments across all three pillars of the NPT—non-proliferation, peaceful uses of nuclear technology and disarmament. (Paragraph 96)
14. The UK’s active role in developing effective techniques and partnerships for the verification of nuclear disarmament is a helpful contribution to the disarmament agenda. The Government should continue this work, and consider opportunities for using new technologies in verification. (Paragraph 112)
15. The Government should consider engaging China in its work on nuclear disarmament verification. (Paragraph 113)
16. The Government should consider facilitating discussion and technical work on nuclear verification with Middle Eastern countries, to build regional capabilities and increase dialogue on non-proliferation and disarmament. (Paragraph 114)
17. The P5 is an important initiative in nuclear diplomacy, which could play a positive role in co-ordinating the implementation by the five Nuclear Weapon States of their Nuclear Non-Proliferation Treaty commitments. It must not become a ‘cartel’ of Nuclear Weapon States, simply lecturing others on why their continued possession of these weapons is justified. (Paragraph 124)
18. We welcome the role played by China as the chair of the P5 process in 2018–19. Trust between the P5 remains low, and meetings in the P5 format could help to build understanding and trust between these states. This could, in the run up to the 2020 Review Conference, contribute to a reduction in the risk of nuclear use. (Paragraph 130)
19. The Nuclear Non-Proliferation Treaty remains a critical part of international security. The success of the treaty will remain of central importance to the UK’s security and to the rules-based international order as a whole. (Paragraph 167)
20. The Nuclear Non-Proliferation Treaty’s successes—near-universal membership, a considerable reduction in nuclear stockpiles since the 1980s, and the establishment of an international norm against new states acquiring nuclear weapons—should be lauded. (Paragraph 168)
21. The presence of nuclear-armed states outside the Nuclear Non-Proliferation Treaty remains a challenge. The UK should pursue opportunities to include nuclear non-proliferation and disarmament in its bilateral discussions with India, Pakistan and Israel. (Paragraph 169)
22. Although nuclear possessor states outside the Nuclear Non-Proliferation Treaty are unlikely to disarm in the short term, the UK should continue to advocate for the universalisation of the treaty. (Paragraph 170)

23. Largely as a result of the worsening security environment, global progress towards disarmament has stalled. We urge the Government to set out its view on what the necessary global conditions for disarmament would be, and use its position in the P5 to encourage progress under this pillar of the NPT. (Paragraph 171)
24. Nuclear modernisation is a necessary part of the maintenance of nuclear weapons and can make these weapons more secure. However, the programmes of many nuclear possessor states go well beyond what can properly be described as modernisation, introducing new capabilities and potentially increasing nuclear risk. We are particularly concerned about new developments in the field of tactical nuclear weapons. (Paragraph 196)
25. The UK's nuclear modernisation programme, although not without its critics, focuses on the renewal of its existing capabilities for a minimum credible deterrent. The Government should encourage other nuclear-armed states to exercise restraint in their modernisation programmes and to avoid expanding their nuclear capabilities. (Paragraph 197)
26. The issue of a Weapons of Mass Destruction-Free Zone in the Middle East has become one of the most contentious for successive Non-Proliferation Treaty Review Conferences. The UK should continue to support work towards the forthcoming UN conference on a Middle East Weapons of Mass Destruction-Free Zone, and should encourage Israel to participate. (Paragraph 214)
27. The Government should also support dialogue and confidence-building steps in the Middle East—such as a regional testing moratorium—with the aim of increasing trust and improving the security environment. We believe that any increase in dialogue and reduction in tensions in the Middle East would be welcome and could make a contribution to the overall success of the 2020 Nuclear Non-Proliferation Treaty Review Conference. (Paragraph 215)
28. The Ban Treaty has little chance of achieving its goals in the short to medium term, not least because none of the nuclear possessor states are signatories. While we welcome evidence from its proponents that it will not undermine the Nuclear Non-Proliferation Treaty, we believe the Ban Treaty risks exacerbating existing polarisation between Nuclear and Non-Nuclear Weapon States while delivering no immediate disarmament benefits. We understand and accept that the Government will remain opposed to the Ban Treaty. (Paragraph 262)
29. We also believe however that the increasing signs of division between Nuclear and Non-Nuclear Weapon States are matters of concern, and that the dissatisfaction of the Ban Treaty's proponents with the status quo on disarmament should be taken seriously. We therefore recommend that the Government should adopt a less aggressive tone about this treaty and seek opportunities to work with its supporters towards the aims of Article 6 of the Nuclear Non-Proliferation Treaty, which concerns disarmament. (Paragraph 263)
30. More openness from the UK, as a responsible nuclear state, on the possible humanitarian impact of nuclear weapons, and a willingness to engage on developing strategies to manage the consequences of nuclear weapons use, would be welcome. (Paragraph 264)

Challenges to non-proliferation and arms control

31. The US decision to withdraw from the Iran nuclear deal is against the interests of the United Kingdom and undermines the global non-proliferation regime. The Government has been right to defend the deal; we welcome its co-operation with European partners to find ways to preserve it. (Paragraph 287)
32. The Government should consult its partners in the Iran nuclear deal about how best to ensure that the gains to the non-proliferation regime delivered by the constraints on Iran's nuclear programme set out in the deal are not put in jeopardy when its time-limited provisions come to an end. (Paragraph 288)
33. We welcome efforts to seek a diplomatic solution to North Korea's nuclear programme. Any future deal achieving the denuclearisation of North Korea will need to be complete and verifiable. (Paragraph 310)
34. Entry into force of the Comprehensive Nuclear-Test-Ban Treaty would be a significant step towards nuclear disarmament. We regret that a number of Annex 2 countries have yet to ratify the treaty. We strongly welcome the UK's vocal support for the entry into force of the Comprehensive Nuclear-Test-Ban Treaty, and its financial support for the Comprehensive Nuclear-Test-Ban Treaty Organisation. Meanwhile, we welcome the fact that the P5 are operating de facto moratoriums on nuclear testing and urge the Government to use its influence to ensure that continues. (Paragraph 322)
35. The Conference on Disarmament is an important forum for non-proliferation and disarmament to be discussed by states, including those outside the Nuclear Non-Proliferation Treaty. The UK should consider every option to unblock the Conference. One option could be to call for negotiations on a fissile material cut-off treaty to be moved out of the Conference on Disarmament and into the UN General Assembly. While this would be likely to result in a treaty with less geographical coverage, a less well-subscribed to treaty would be better than no treaty at all, particularly if it included among its signatories the P5 countries which have ceased production of weapons-grade highly enriched uranium and plutonium. Moreover, the removal of this issue from the Conference on Disarmament would remove an obstacle to the forum agreeing a programme of work. (Paragraph 338)
36. We accept that Russia is in violation of the Intermediate-Range Nuclear Forces Treaty. Numerous attempts to resolve concerns about compliance have made no progress, which has led to the undesirable collapse of the treaty. The UK, along with its European partners, should use the ongoing discussions in NATO to promote approaches that could lead either to a revival of the treaty or, at least, to avoiding the deployment of such missiles in Europe by either party to the treaty. (Paragraph 366)
37. The possible continuation of New START is a decision for the US and Russia, but the Government should make clear to the US Administration the value the UK attaches to this treaty being extended beyond 2021 and its importance to Euro-Atlantic security. (Paragraph 373)
38. The world is dangerously close to an era without arms control, which would increase the risk of nuclear use. We urge the Government to support initiatives, including trust and confidence building measures, to achieve

new arms control agreements in the context of a more multipolar world. (Paragraph 388)

39. The future of arms control is challenged by the emergence of certain new technologies. However, that it is difficult is no excuse not to try to develop arms control in the context of these technologies. Arms control agreements have overcome technological change in the past, and there is no inherent reason why this cannot be done again. (Paragraph 390)

The 2020 NPT Review Conference

40. The 2020 Review Conference is likely to be challenging for the Nuclear Non-Proliferation Treaty, and will be affected by the global security situation. In particular, the Review Conference will be likely to be tested by the collapse of important non-proliferation and arms control agreements, and the perception of wider threats to the rules-based international order. (Paragraph 397)
41. The Nuclear Weapon States must, in good faith, address the dissatisfaction of Non-Nuclear Weapon States at the 2020 Review Conference, including by showing a demonstrable commitment to the disarmament pillar of the NPT. (Paragraph 398)
42. The Government should make every effort to ensure that a Final Document to the 2020 Review Conference of the Nuclear Non-Proliferation Treaty is agreed and avoid a situation such as that in 2015 when the UK was one of only three countries which prevented consensus being reached. (Paragraph 399)
43. We recommend that the UK, as one of the three depositary powers, should mark its political support for the Nuclear Non-Proliferation Treaty on its 50th anniversary by being represented at a high level. The Government should consider representation by the Secretary of State for Foreign and Commonwealth Affairs at the 2020 Nuclear Non-Proliferation Treaty Review Conference. It should also support High Representative Nakamitsu's initiative to hold a ministerial meeting in advance of RevCon, by indicating the willingness of the Secretary of State for Foreign and Commonwealth Affairs to attend such a meeting. (Paragraph 403)
44. The UK should propose that the impact of new technologies should be considered by both Nuclear Weapon States and Non-Nuclear Weapon States at the 2020 RevCon of the Nuclear Non-Proliferation Treaty. Ahead of this conference, the Government should set out its ideas on how to manage the nuclear risks associated with new technologies. (Paragraph 404)
45. The UK has a strong track record of disarmament—having unilaterally reduced its arsenal to a single strategic system—and has been actively engaged in counter-proliferation work, including talks with Iran. In the run up to the 2020 Review Conference, it should set out a clear vision for future work towards disarmament, and seek to influence the Nuclear Weapon States to fulfil their obligations under the three pillars of the NPT. (Paragraph 412)
46. Assuming the chair of the P5 process from May 2019 presents a significant opportunity for the UK. It should encourage the other Nuclear Weapon States to use the P5 process for more substantive discussions, and as a forum to promote greater transparency between them. (Paragraph 425)

47. As the only Nuclear Weapon State to have adopted a credible minimum deterrent, the UK should advocate reducing reliance on nuclear weapons, and outlining the conditions for moving towards credible minimum deterrence. (Paragraph 426)
48. The Government should consider proposing that Nuclear Weapon States' doctrines and postures, and increasing transparency through regular reporting on strategic weapons numbers, should be on the agenda for the next P5 conference. Such discussions could be a valuable contribution to transparency and should reduce the risk of miscalculation. (Paragraph 427)
49. The Government should consider clarifying its nuclear posture at the 2020 NPT Review Conference and encouraging other members of the P5 to take similar steps. This could include providing clearer negative security assurances, considering declarations of sole purpose and a no first use commitment, and further work on de-alerting. The objective should be to reduce the possibility of misperceptions and misunderstanding during a crisis. (Paragraph 428)
50. The UK should use its chairmanship of the P5 group to encourage a more constructive tone and approach by Nuclear Weapon States towards advocates of disarmament at the 2020 RevCon. It should explore further engagement between the P5 and Non-Nuclear Weapon States (NNWS) on the disarmament agenda to bridge the gap between the P5 and signatories to the Ban Treaty. It should ensure that both NNWS and civil society are invited to engage in parts of any P5 meetings led by the UK. (Paragraph 429)
51. Recent tensions between India and Pakistan demonstrate that it will be impossible to reduce the risk of nuclear use without engaging all nuclear possessor states. The UK should propose inviting India and Pakistan to meet the P5 on the margins of the next P5 conference. India and Pakistan have been included in discussions in the past, and this would be an opportunity to hold dialogue with the aim of reducing tensions and increasing understanding. (Paragraph 430)
52. The Government should continue to engage constructively with the President-designate to the 2020 Review Conference, and seek fully to engage the members of the P5 in preparations for this conference. (Paragraph 431)
53. The UK's contribution to disarmament verification was widely welcomed by witnesses. It should continue this work, and be prepared to increase its wider funding for research on non-proliferation and disarmament. (Paragraph 432)
54. The US's 'Creating the Environment for Nuclear Disarmament' initiative could be a helpful part of the step-by-step process towards eventual disarmament. We recommend that the UK should engage fully with the initiative, to seek to make it a constructive forum for engagement between Nuclear Weapon States and Non-Nuclear Weapon States. (Paragraph 438)

APPENDIX 1: LIST OF MEMBERS AND DECLARATIONS OF INTEREST

Members

Baroness Anelay of St Johns
 Baroness Coussins
 Lord Grocott
 Lord Hannay of Chiswick
 Lord Jopling
 Baroness Hilton of Eggardon
 Lord Howell of Guildford (Chairman)
 Baroness Helic
 Lord Purvis of Tweed
 Lord Reid of Cardowan
 Baroness Smith of Newnham
 Lord Wood of Anfield

Declarations of interest

Baroness Anelay of St Johns
Member, European Leadership Network

Baroness Coussins
No relevant interests declared

Lord Grocott
No relevant interests declared

Lord Hannay of Chiswick
Member, European Leadership Network
Member, Top Level Group of UK Parliamentarians for Multilateral Nuclear Disarmament and Non-proliferation

Baroness Helic
Member, UN Secretary General's Advisory Board on Disarmament Matters

Baroness Hilton of Eggardon
No relevant interests declared

Lord Howell of Guildford (Chairman)
No relevant interests declared

Lord Jopling
Member, UK Delegation to the NATO Parliamentary Assembly

Lord Purvis of Tweed
No relevant interests declared

Lord Reid of Cardowan
No relevant interests declared

Baroness Smith of Newnham
No relevant interests declared

Lord Wood of Anfield
Chair, United Nations Association (UK)

A full list of Members interests can be found in the register of Lords' interests: <https://www.parliament.uk/mps-lords-and-offices/standards-and-interests/register-of-lords-interests/>

Specialist Adviser

Dr Heather Williams

Management of the following contracts/grants:

Trust-Building in the Global Nuclear Order, funded by the MacArthur Foundation, 2018–2020

U.S. Messaging around the NPT and Nuclear Ban Treaty, funded by Los Alamos National Laboratory, 2017–2019

Escalation by Tweet: The Impact of Social Media on Conflict, funded by the U.S. Air Force Academy/Department of Defense, 2018–2019

Asymmetric Arms Control and Social Media Wargaming, funded by the Carnegie Corporation of New York, 2018–2019

Project on Strategic Stability Evaluation, funded by the Carnegie Corporation of New York, 2018–2019

Consultancy:

Co-Chair, James Martin Center for Non-Proliferation Studies Working Group on Alternative Pathways to Disarmament, 2018–present

Adjunct Research Staff Member, Institute for Defense Analyses (Alexandria, Virginia), 2008–present

Associate Fellow, Royal United Services Institute

Board member:

British American Security Information Council (BASIC), co-chair, 2017–present

Project on Nuclear Issues, Royal United Services Institute, 2017–present

Editorial Board of the Nonproliferation Review, 2017–present

APPENDIX 2: LIST OF WITNESSES

Evidence is published at www.parliament.uk/intl-relations and available for inspection at the Parliamentary Archives (020 7219 3074).

Evidence received by the Committee is listed below in chronological order of oral evidence session and in alphabetical order. Those witnesses marked with ** gave both oral and written evidence. Those marked with * gave oral evidence and did not submit any written evidence. All other witnesses submitted written evidence only.

Oral evidence in chronological order

- | | | |
|----|--|--------------------------|
| * | Izumi Nakamitsu, Under-Secretary-General and High Representative for Disarmament Affairs, United Nations | QQ 1–12 |
| * | Sarah Price, Head of Counter Proliferation and Arms Control Centre, Foreign and Commonwealth Office | QQ 13–26 |
| * | Shatabhisha Shetty, Deputy Director, European Leadership Network | QQ 27–34 |
| * | Paul Ingram, Executive Director, British American Security Information Council | QQ 27–34 |
| ** | Tom Plant, Director, Proliferation and Nuclear Policy, Royal United Services Institute | QQ 35–48 |
| ** | The Rt Hon Lord Browne of Ladyton, former Secretary of State for Defence, and Vice-Chair, Nuclear Threat Initiative | QQ 49–56 |
| ** | Dr Rebecca Johnson, Executive Director, Acronym Institute for Disarmament Diplomacy | QQ 57–64 |
| ** | Dr Hassan Elbahtimy, Lecturer in Science and Security, King’s College London | QQ 57–64 |
| * | Andrea Berger, then Senior Research Associate and Senior Program Manager, James Martin Center for Nonproliferation Studies | QQ 65–76 |
| * | Sir Simon Gass KCMG CVO, former British Ambassador to Iran and former Political Director, Foreign and Commonwealth Office | QQ 65–76 |
| * | Rear Admiral John Gower CB OBE, former Assistant Chief of Defence Staff (Nuclear, Chemical, Biological), Ministry of Defence | QQ 77–86 |
| * | François Heisbourg, Special Adviser, Fondation pour la recherche stratégique, and Senior Adviser for Europe, International Institute for Strategic Studies | QQ 87–93 |
| ** | Alexander Kmentt, former Director, Department for Disarmament, Arms Control and Non-Proliferation, Austrian Federal Ministry for Europe, Integration and Foreign Affairs | QQ 87–93 |

- ** Jessica Cox, Director, Nuclear Policy Directorate, NATO [QQ 94–101](#)
- * Beatrice Fihn, Executive Director, International Campaign to Abolish Nuclear Weapons (ICAN) [QQ 102–112](#)
- ** Dr Nick Ritchie, Lecturer (International Security), University of York [QQ 102–112](#)
- * Alexandra Bell, Senior Policy Director, Center for Arms Control and Non-Proliferation [QQ 113–120](#)
- ** Dr Oliver Meier, Deputy Head, International Security Division, German Institute for International Affairs [QQ 113–120](#)
- ** Dr Tong Zhao, Fellow, Carnegie-Tsinghua Center for Global Policy, Beijing [QQ 121–127](#)
- * Dr Anastasia Malygina, Associate Professor, School of International Relations, St Petersburg University [QQ 128–133](#)
- * Dr Rafael Grossi, Permanent Representative of Argentina to the International Organisations in Vienna and President-designate of the 2020 NPT Review Conference [QQ 134–143](#)
- * Bert Koenders, former Minister of Foreign Affairs, Kingdom of the Netherlands [QQ 144–151](#)
- ** The Rt Hon Sir Alan Duncan KCMG MP, Minister of State for Europe and the Americas, Foreign and Commonwealth Office [QQ 152–165](#)
- Sarah Price, Head of Counter Proliferation and Arms Control Centre, Foreign and Commonwealth Office [QQ 152–165](#)
- James Franklin, Deputy Director, Defence Nuclear Policy, Ministry of Defence [QQ 152–165](#)

Alphabetical list of all witnesses

- Article 36 [NPT0025](#)
- Andrey Baklitskiy, Consultant, PIR Centre [NPT0046](#)
- Diana Ballestas de Dietrich, Former Policy and Strategy Officer of the Office of the Executive Secretary of the Preparatory Commission of the Comprehensive Nuclear-Test-Ban Treaty Organization [NPT0027](#)
- The Baptist Union of Great Britain, the Church of Scotland, the Methodist Church in Britain and the United Reformed Church [NPT0013](#)
- * Alexandra Bell, Senior Policy Director, Center for Arms Control and Non-Proliferation ([QQ 113–120](#))
- * Andrea Berger, then Senior Research Associate and Senior Program Manager, James Martin Center for Nonproliferation Studies ([QQ 65–76](#))

	British American Security Information Council (BASIC)	NPT0020
**	The Rt Hon Lord Browne of Ladyton, former Secretary of State for Defence, and Vice-Chair, Nuclear Threat Initiative (QQ 49–56)	NPT0044
	Dr Lyndon Burford, Postdoctoral Research Associate, Department of War Studies, Centre for Science and Security Studies (CCSS), King’s College London	NPT0032 NPT0043
	Dr James Cameron Postdoctoral Research Associate, Department of War Studies, Centre for Science and Security Studies (CCSS), King’s College London	NPT0032
	Campaign for Nuclear Disarmament	NPT0022
	CBW Events	NPT0026
	Christian Campaign for Nuclear Disarmament	NPT0011
	Dr Jenny Clegg, former Senior Lecturer, University of Central Lancashire	NPT0021
	Dr Avner Cohen, Professor and Senior Fellow, The Middlebury Institute of international Studies at Monterey	NPT0048
**	Jessica Cox, Director, Nuclear Policy Directorate, NATO (QQ 94–101)	NPT0039
	Mr Brian Drummond	NPT0008
**	The Rt Hon Sir Alan Duncan MP, Minister of State for Europe and the Americas, Foreign and Commonwealth Office (QQ 152–165)	NPT0040 NPT0050
**	Dr Hassan Elbahtimy, Lecturer in Science and Security, Centre for Science and Security Studies (CCSS), King’s College London (QQ 57–64)	NPT0032
	Christopher Evans, PhD Candidate, University of Reading School of Law	NPT0006
	Professor Gareth Evans, Chancellor, Australian National University, and former Australian Minister for Foreign Affairs	NPT0036
	Martin Everett, Centre for Science and Security Studies (CCSS), King’s College London	NPT0032
	Executive Committee of British Pugwash	NPT0003
*	Beatrice Fihn, Executive Director, International Campaign to Abolish Nuclear Weapons (ICAN) (QQ 102–112)	
	Foreign and Commonwealth Office	NPT0035
	James Franklin, Deputy Director of Defence Nuclear Policy, Ministry of Defence (QQ 152–165)	

- * Sir Simon Gass KCMG CVO, former British Ambassador to Iran and former Political Director, Foreign and Commonwealth Office ([QQ 65–76](#))
- * Rear Admiral John Gower CB OBE, former Assistant Chief of Defence Staff (Nuclear, Chemical, Biological), Ministry of Defence ([QQ 77–86](#))
- * Dr Rafael Grossi, Permanent Representative of Argentina to the International Organisations in Vienna and President-designate of the 2020 NPT Review Conference ([QQ 134–143](#))
Harvard Law School’s International Human Rights Clinic [NPT0009](#)
- * François Heisbourg, Special Adviser, Fondation pour la recherche stratégique, and Senior Adviser for Europe, International Institute for Strategic Studies ([QQ 87–93](#))
Dr Christopher Hobbs, Reader in Science and Security, War Studies Department, Centre for Science and Security Studies (CCSS), King’s College London [NPT00032](#)
- * Paul Ingram, Executive Director, British American Security Information Council ([QQ 27–34](#))
International Campaign to Abolish Nuclear Weapons [NPT00022](#)
- ** Dr Rebecca Johnson, Executive Director, Acronym Institute for Disarmament Diplomacy ([QQ 57–64](#)) [NPT0034](#)
Dr Ben Kienzle, Senior Lecturer, Defence Studies Department, Centre for Science and Security Studies (CCSS), King’s College London [NPT0032](#)
- ** Alexander Kmentt, former Director, Department for Disarmament, Arms Control and Non-Proliferation, Austrian Federal Ministry for Europe, Integration and Foreign Affairs ([QQ 87–93](#)) [NPT0047](#)
- * Bert Koenders, former Minister of Foreign Affairs, Kingdom of the Netherlands ([QQ 144–151](#))
Matt Korda, Research Associate, Nuclear Information Project [NPT0041](#)
A. Vinod Kumar, Associate Fellow, Institute for Defence Studies and Analyses, New Delhi [NPT0015](#)
Dr Nicola Leveringhaus, Lecturer, War Studies Department, Centre for Science and Security Studies (CCSS), King’s College London [NPT0032](#)
Dr David Lowry, Senior International Research Fellow, Institute for Resource and Security Studies [NPT0031](#)
- * Dr Anastasia Malygina, Associate Professor, School of International Relations, St Petersburg University ([QQ 128–133](#))

	Medact	NPT0014
**	Dr Oliver Meier, Deputy Head, International Security Division, German Institute for International Affairs (QQ113–120)	NPT0045
	Baroness Susan Miller, Co-President, Parliamentarians for Nuclear Non Proliferation and Disarmament	NPT0001
	Franklin Miller KBE	NPT0042
	Dr Adil Sultan Muhammad, Visiting Research Fellow, War Studies Department, Centre for Science and Security Studies (CCSS), King's College London	NPT0032
*	Izumi Nakamitsu, Under-Secretary-General and High Representative for Disarmament Affairs, United Nations (QQ 1–12)	
	Northern Friends Peace Board	NPT0019
	Nuclear Free Local Authorities	NPT0002
	Andrew Olivo, PgCert, Nuclear Deterrence, Harvard Extension School, Harvard University	NPT00016
	Dr Rishi Paul, South Asia Analyst, British American Security Information Council	NPT0024
	PAX	NPT0018
	Dr William Perry, former US Secretary of Defense	NPT0033
**	Tom Plant, Director, Proliferation and Nuclear Policy, Royal United Services Institute (QQ 35–48)	NPT00037
	Preparatory Commission for the Comprehensive Test-Ban-Treaty Organisation	NPT0049
*	Sarah Price, Head of Counter Proliferation and Arms Control Centre, Foreign and Commonwealth Office (QQ 13–26) (QQ 152–165)	
**	Dr Nick Ritchie, Lecturer (International Security), University of York (QQ 102–112)	NPT0010
	Dr Brad Roberts, former US Deputy Assistant Secretary of Defense for Nuclear and Missile Defense Policy	NPT0029
	Paul Schulte, Honorary Professor, Institute for Conflict, Cooperation and Security, University of Birmingham	NPT0030
	Scientists for Global Responsibility	NPT0017
	Scottish Campaign for Nuclear Disarmament	NPT0004
*	Shatabhisha Shetty, Deputy Director, European Leadership Network (QQ 27–34)	
	Trident Ploughshares	NPT0005

- Dr Sarah Tzinieris, Research Fellow, War Studies
Department, Centre for Science and Security Studies
(CCSS), King's College London [NPT0032](#)
- United Nations Association-UK [NPT0028](#)
- Cristina Varriale, Research Fellow–Proliferation and
Nuclear Policy, Royal United Services Institute [NPT0037](#)
- Professor Nicholas J. Wheeler, Director of the Institute
for Conflict, Cooperation and Security, University of
Birmingham [NPT0030](#)
- Women's International League for Peace and Freedom
UK [NPT0023](#)
- ** Dr Tong Zhao, Fellow, Carnegie-Tsinghua Center for
Global Policy, Beijing ([QQ 121-127](#)) [NPT0038](#)

APPENDIX 3: CALL FOR EVIDENCE

As a result of rising tensions between nuclear-armed states and the fragmenting of existing non-proliferation and arms control agreements, nuclear weapons are on the international agenda in a way they have not been since the end of the Cold War.

The Nuclear Non-Proliferation Treaty (NPT), along with other components of the nuclear non-proliferation regime, form a critical pillar of the rules-based international order. Since the NPT's most recent Review Conference in 2015 there have been significant developments affecting the proliferation, development and use of nuclear weapons. The United States has taken the step of withdrawing from the Iran nuclear deal, opened negotiations with North Korea, and announced its intention to pull out of the Intermediate Nuclear Forces Treaty (INF) with Russia. Meanwhile, nuclear-armed states have begun significant modernisation programmes, with the United States and Russia signalling the substantial expansion of future capabilities and considering the use of nuclear weapons in the battlefield.

Rising nuclear tensions have been accompanied by a growing dissatisfaction amongst proponents of nuclear disarmament. In 2017, the Treaty on the Prohibition of Nuclear Weapons (commonly referred to as the Ban Treaty) opened for signature, further widening the divide between nuclear-armed states (and their allies) and proponents of disarmament.

In this context, the House of Lords International Relations Committee is launching an inquiry into the NPT and nuclear disarmament, during which it will examine the state of global nuclear diplomacy and the United Kingdom's role in it. During this inquiry the Committee will focus on the non-proliferation and disarmament aspects of the NPT, and not consider directly the civilian use of nuclear energy.

Nuclear risk

- What is your evaluation of the current level of risk that nuclear weapons, of any type, could be used?

The Nuclear Non-Proliferation Treaty

- Ahead of the 2020 Review Conference of the Nuclear Non-Proliferation Treaty (NPT), what are the biggest challenges facing global nuclear diplomacy?
 - (1) To what extent do states still view the NPT as relevant?
 - (2) What are the prospects for other components of the nuclear non-proliferation regime, such as the Comprehensive Nuclear-Test-Ban-Treaty (CTBT)?
 - (3) How important are these agreements to the wider rules-based international order?
 - (4) To what extent does the existence of three nuclear armed states outside the NPT (India, Israel and Pakistan) destabilise the overall regime?
 - (5) What prospects are there for a Middle East WMD free zone?

The United States

- To what extent will the United States' withdrawal from the Iran nuclear deal, as well as US efforts to achieve the denuclearisation of the Korean Peninsula, affect the wider nuclear nonproliferation regime?

Nuclear arms control

- To what extent and why are existing nuclear arms control agreements being challenged, particularly the Intermediate-Range Nuclear Forces Treaty (INF) and the New Strategic Arms Reduction Treaty (New START), and what prospect is there for further such agreements? What prospects are there of progress in negotiating a Fissile Material Cut-Off Treaty (FMCT)?

Nuclear modernisation programmes

- What effect will nuclear renewal programmes have on the nuclear non-proliferation and disarmament regime? To what extent could technological developments—including in missile capabilities, warhead strength, and verification—undermine existing non-proliferation and arms control agreements?

New technologies

- To what extent will technological developments, both directly relating to nuclear weapons and in the wider defence and security sphere, affect nuclear diplomacy?

The Treaty on the Prohibition of Nuclear Weapons

- If it were to enter into force, how would the Treaty on the Prohibition of Nuclear Weapons (commonly referred to as the Ban Treaty) affect efforts to prevent the proliferation of nuclear weapons and bring about disarmament?

The P5

- What are the policies of other P5 countries (China, France, Russia and the United States), and the UK's other partners, on the Non-Proliferation Treaty (NPT) and on nuclear weapons more generally? Have these policies changed, and if so, why? How effective has the P5 process been, and what role will it have in the future?

The role of the UK

- How effective a role has the UK played in global nuclear diplomacy in recent years? How could the UK more effectively engage on nuclear non-proliferation and disarmament? What should the UK Government's priorities be ahead of the 2020 NPT Review Conference?

APPENDIX 4: GLOSSARY OF TERMS

ABM Treaty	The Anti-Ballistic Missile Treaty
AWE	The UK Atomic Weapons Establishment
The Ban Treaty	The Treaty on the Prohibition of Nuclear Weapons (TPNW)
CASD	Continuous at-sea deterrence (as operated by the UK's Vanguard-class submarines)
CCND	The Creating the Conditions for Nuclear Disarmament Initiative (renamed the Creating the Environment for Nuclear Disarmament Initiative)
CD	The Conference on Disarmament
CPACC	The Government's Counter Proliferation and Arms Control Centre
CSA	Comprehensive Safeguard Agreements
CTBT	The Comprehensive Nuclear-Test-Ban Treaty
CTBTO	The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organisation
DDPR	NATO's Deterrence and Defence Posture Review
DMZ	The Korean Demilitarized Zone
FMCT	A potential fissile material cut-off treaty
HEU	Highly enriched uranium
IAEA	The International Atomic Energy Agency
ICAN	The International Campaign to Abolish Nuclear Weapons
ICBM	Intercontinental ballistic missile
IMS	The International Monitoring System (part of the CTBT)
The INF Treaty	The Intermediate Nuclear Forces Treaty
INSTEX	The Instrument in Support of Trade Exchanges is a special-purpose vehicle established in January 2019 by France, Germany and the United Kingdom to facilitate non-dollar trade with Iran.
IPNDV	The International Partnership for Nuclear Disarmament Verification
JCPOA	The Joint Comprehensive Plan of Action (the Iran nuclear deal)
LEU	Low-enriched uranium
NIS	Nuclear Information Service
NNWS	Non-Nuclear Weapon States as recognised by the NPT
NPDI	Non-Proliferation and Disarmament Initiative
NPT	The Nuclear Non Proliferation Treaty (formally the Treaty on the Non Proliferation of Nuclear Weapons)

NPR	The US Nuclear Posture Review
NSA	Non-state actor
NSS	The UK National Security Strategy
NTI	The Nuclear Threat Initiative
NSG	The Nuclear Suppliers Group
Nuclear sharing country	The five NATO Allies—Belgium, Germany, Italy, Netherlands and Turkey—that host US nuclear weapons on their territory.
NWFZ	Nuclear Weapon Free Zone
NWS	Nuclear Weapon State as recognised by the NPT
P5	The five NPT-recognised Nuclear Weapons States
P5+1	The five permanent members of the UN Security Council and Germany. Used in relation to the six's negotiation with Iran regarding its nuclear weapons programme.
PrepCom	A Preparatory Committee ahead of a Review Conference of the NPT
QNVP	The Quad Nuclear Verification Partnership
RevCon	A Review Conference of the NPT
SDSR	The UK Strategic Defence and Security Review
SLBN	Submarine-launched ballistic missile
SSBN	Ship, submersible, ballistic, nuclear (such as the UK's Vanguard-class submarine)
Status-6	A type of long range nuclear torpedo
Strategic Concept 2010	The Strategic Concept is an official document that outlines NATO's enduring purpose and nature, and its fundamental security tasks.
TPNW	The Treaty on the Prohibition of Nuclear Weapons (or Ban Treaty)
UKNI	The UK-Norway Initiative
UNIDR	The UN Institute for Disarmament Research
UNODA	The UN Office for Disarmament Affairs
WMDFZ	A Weapons of Mass Destruction-Free Zone