

Nuclear Non-Proliferation: Legal and Political Aspects

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During the Cold War years 7 states acquired nuclear weapons (8 with India)

- USA (1945)
- USSR (1949)
- Great Britain (1952)
- France (1960)
- China (1964)
- Israel (early 1970th)
- India (1974)
- South Africa (early 1980th)

Suspected of nuclear military programs:

- Sweden
- Switzerland
- Germany
- Italy
- India
- Pakistan
- Japan
- North Korea
- South Korea
- Taiwan
- Brazil
- Argentina

Forecast of early 1970th:

- By the beginning of the 21st century there will be 20-25 nuclear arms states

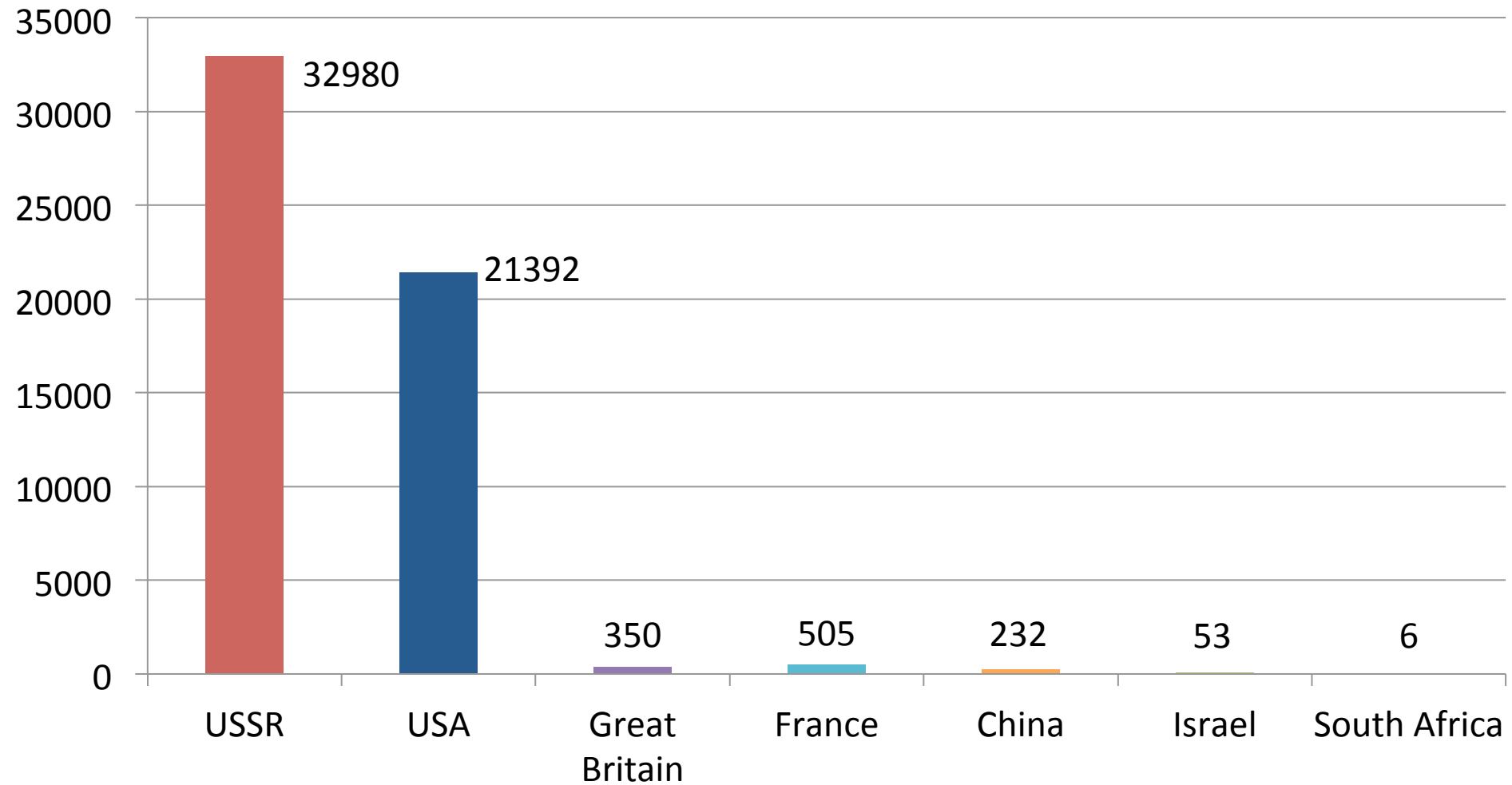
- 1957 – Creation of the IAEA
- 1962 – Cuban Missile Crisis
- 1963 – Partial Test Ban Treaty
- 1967 – Treaty on Outer Space
- 1968 – Beginning of the U.S.-Soviet SALT negotiations
- 1968 – Signing of the Nuclear Nonproliferation Treaty (NPT)

NPT Key Provisions

(signed in 1968 and in force since 1970)

- The five recognized nuclear-weapon states undertake not to assist any non-nuclear-weapon state to acquire nuclear weapons (Article I);
- Non-nuclear-weapon states undertake not to acquire nuclear weapons or seek assistance to do so (Article II);
- Non-nuclear-weapon states undertake to accept safeguards by the International Atomic Energy Agency (IAEA) to verify the fulfilment of their obligations under the Treaty not to divert nuclear energy from peaceful uses to nuclear weapons (Article III);
- The “inalienable right” of all parties is recognized to use nuclear energy for peaceful purposes, and all parties undertake to cooperate in the application of nuclear energy for peaceful purposes (Article IV);
- All parties undertake to pursue negotiations in good faith on nuclear disarmament, and on general and complete disarmament (Article VI);
- A nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967 (Article IX)
- Each Party... have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty and to the United Nations Security Council three months in advance (Article X).

Nuclear Arsenals in the World (1990)



Source: Hans M. Kristensen and Robert S. Norris, Global nuclear weapons inventories, 1945–2013, Bulletin of the Atomic Scientists, 2013, No. 69(5), p. 78, <http://bos.sagepub.com/content/69/5/75.full.pdf+html>.

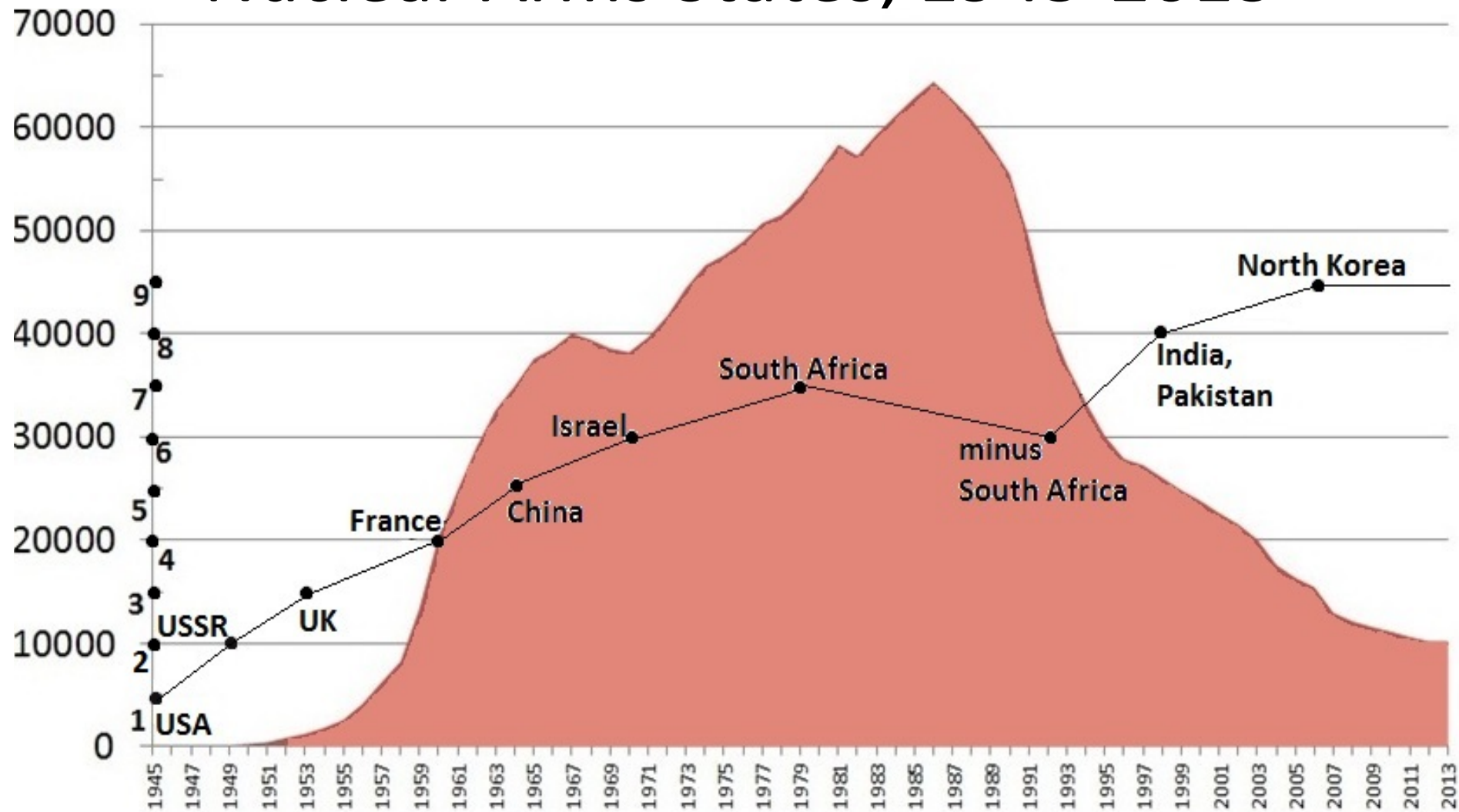
Nuclear Disarmament and Nonproliferation after the End of Cold War

- 1991-1994 – START-1
- 1991 – Iraq deprived of nuclear weapons by force
- 1991 – South Africa dismantled nuclear weapons and joined NPT
- 1993-2010 – START-2
- 1994 – Ukraine, Kazakhstan and Belorussia let go of nuclear weapons
- 1995 – Indefinite duration of the NPT (40 new states joined NPT, including France and China in 1992)
- 1996 - CTBT
- 1997 – Additional Protocol of the IAEA
- 1997 – START-3
- 2002 – SORT
- 2010 – New START

New Wave of Nuclear Proliferation

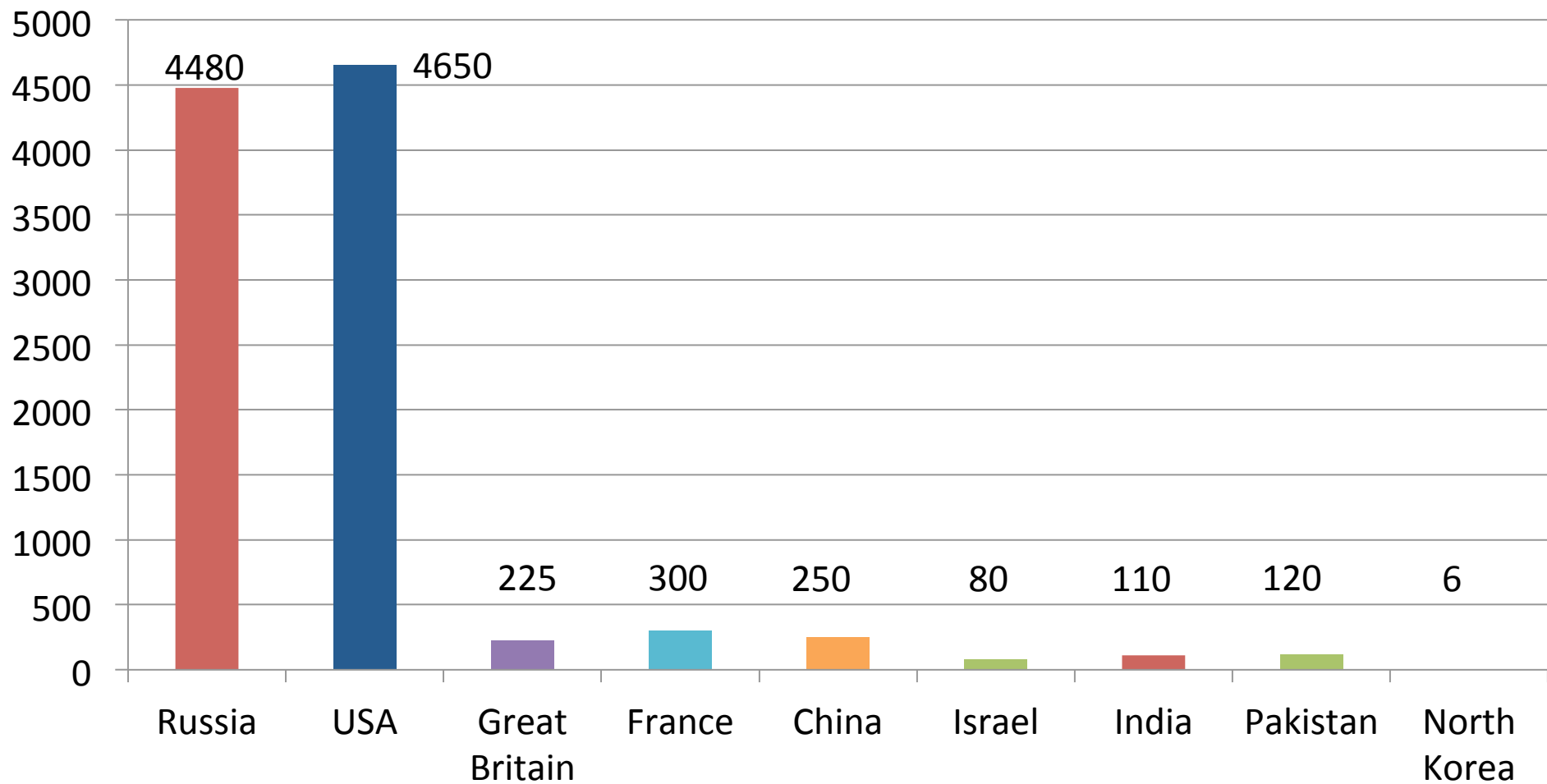
- 1998 – India and Pakistan acquired nuclear weapons
- 2003 – North Korea withdrew from the NPT
- 2003 – Iranian nuclear program came under suspicion
- 2006 – 1st nuclear test in North Korea
- 2009 – 2nd nuclear test in North Korea
- 2013 – 3rd nuclear test in North Korea

Nuclear Arsenals and Nuclear Arms States, 1945-2013



Source: Hans M. Kristensen and Robert S. Norris, Global nuclear weapons inventories, 1945–2013, Bulletin of the Atomic Scientists, 2013, No. 69(5), p. 76, <http://bos.sagepub.com/content/69/5/75.full.pdf+html>.

Nuclear Arsenals in the World (2013)



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From 193 members of the UN

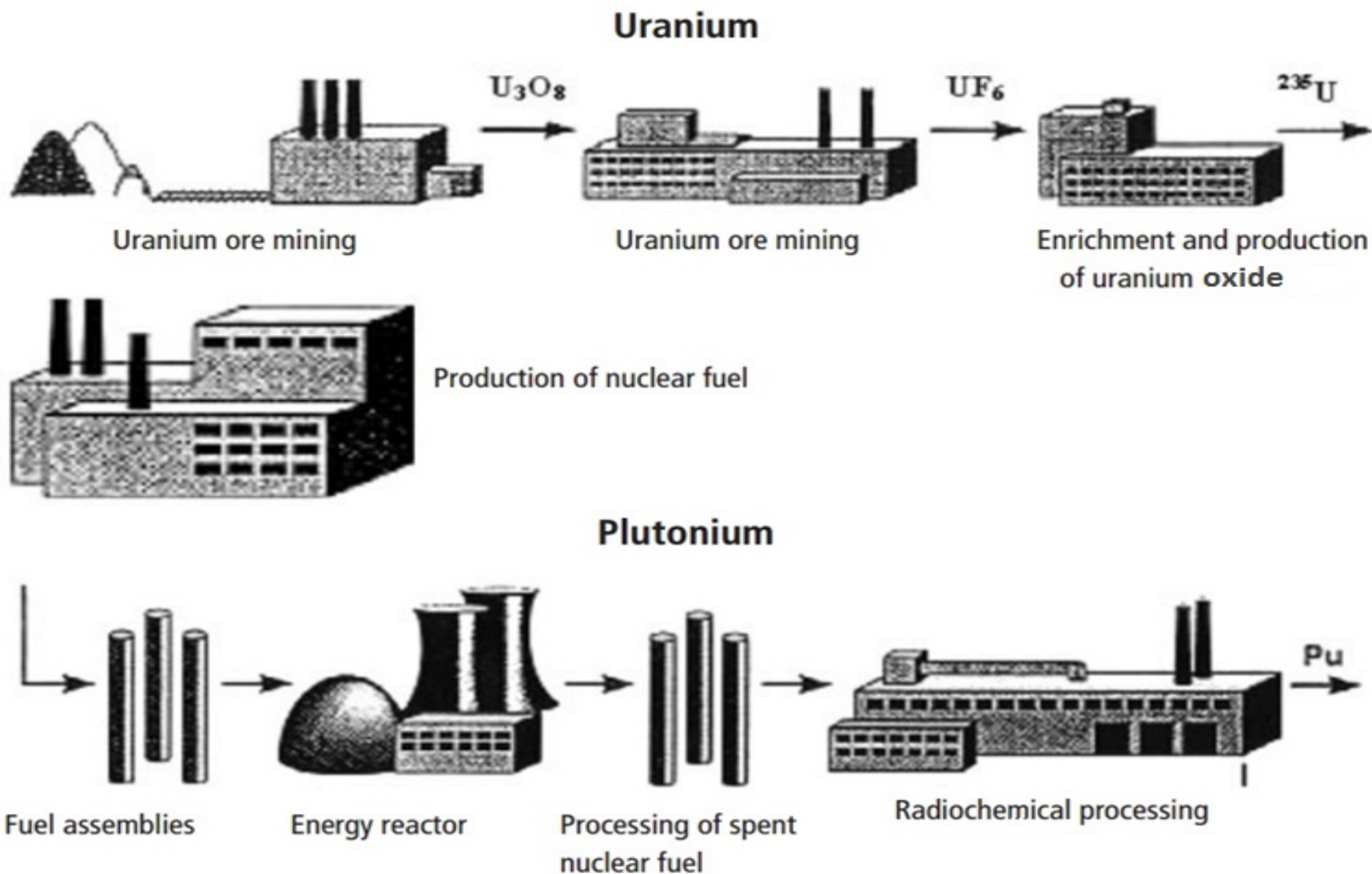
- 188 states are the parties of the NPT (5 outside the Treaty: India, Pakistan, Israel, North Korea, South Sudan);
- 121 states are the parties of the 1997 Additional Protocol.

3 ways of future nuclear proliferation;

1. Secret violations of the IAEA safeguards (North Korea, Iraq, Iran, Libya, Syria);
2. Withdrawal from the NPT and acquisition of nuclear weapons (North Korea);
3. International terrorism acquiring nuclear explosive devices.

Nuclear fuel cycle, technologies of enrichment of Uranium and separation of Plutonium

Nuclear Fuel Cycle



1. Prevention of secret violations:

- Universalization of the 1997 Additional Protocol;
- Enhancement of the IAEA potential;
- Nuclear export controls.

2. The right of withdrawal from the NPT:

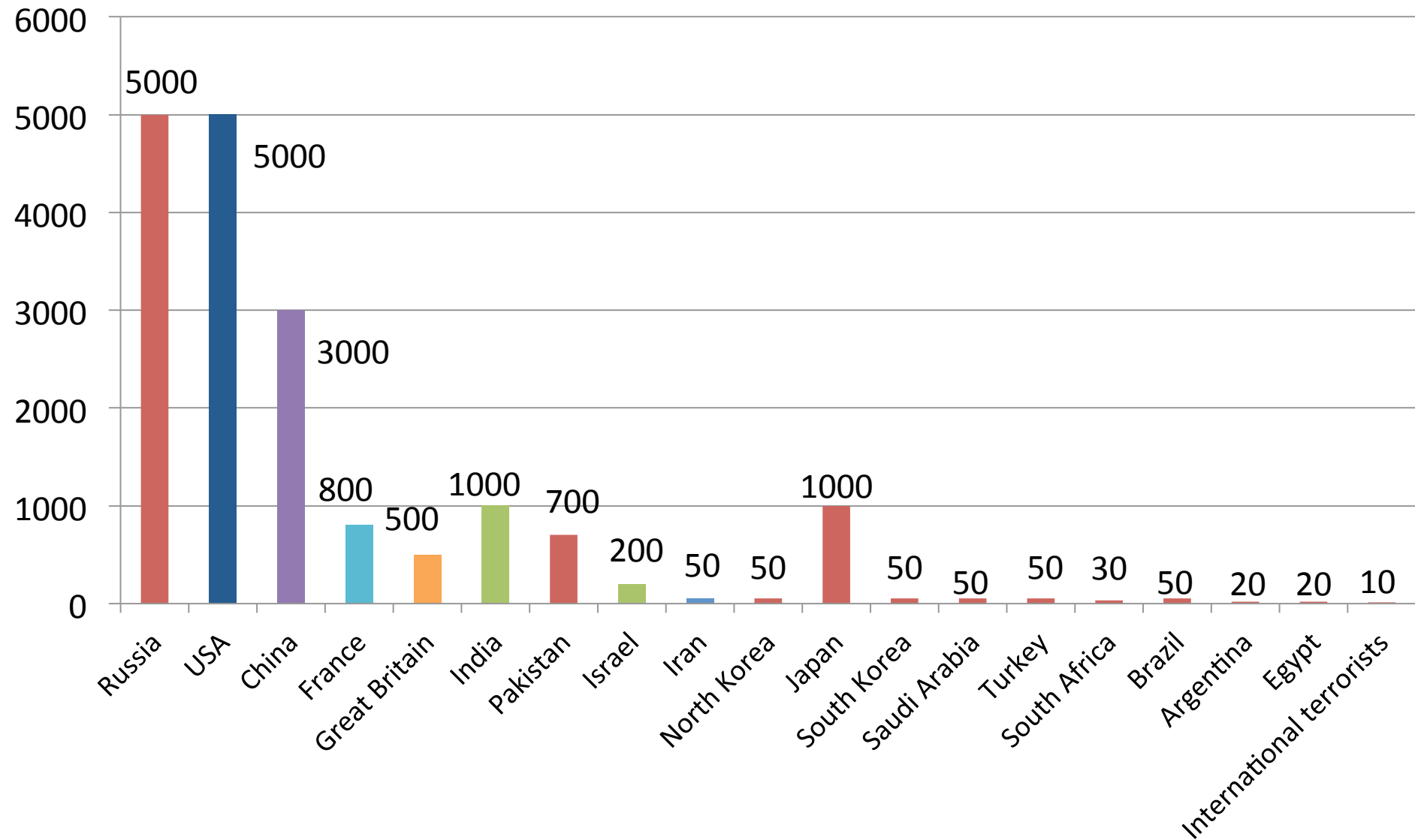
- “Supreme national interest” (North Korea, 1992 and 2003);
- Extraordinary NPT Review Conference, UN SC;
- No right of military use of peaceful nuclear materials and technologies, acquired under the NPT (article IV).

3. Internationalization of the nuclear fuel cycle (URENCO, Eurodif, and Angarsks).

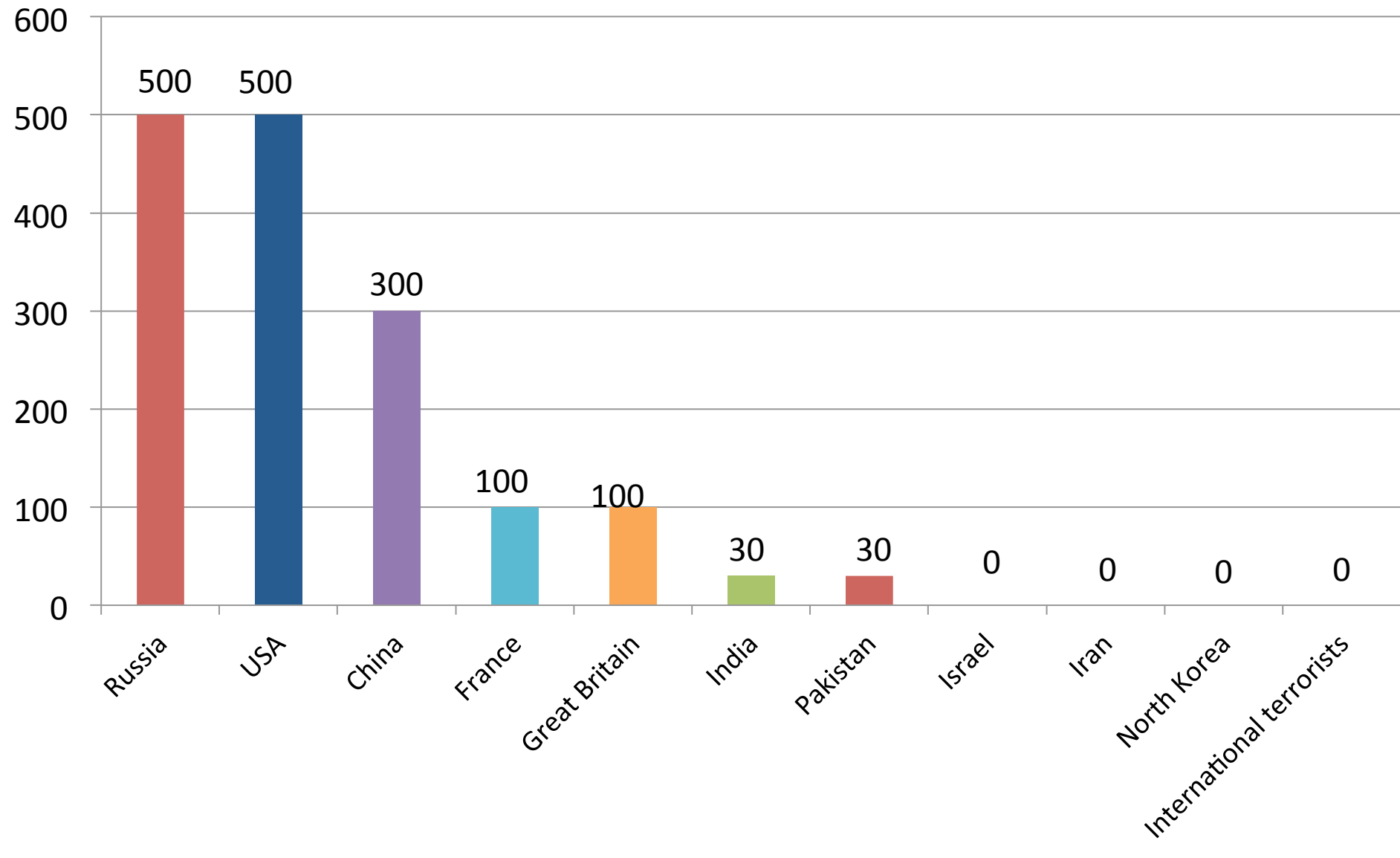
4. Further nuclear disarmament (article VI):

- CTBT;
- FMCT/FMT;
- Nuclear weapons states’ fuel cycle under the IAEA safeguards;
- Further nuclear arms reductions;
- Iran and North Korea coming back under NPT provisions.

Pessimistic Scenario (2033)



Optimistic Scenario (2033)



**IS COMPLETE NUCLEAR DISARMAMENT EVENTUALLY
FEASIBLE?**

**“AS FAR AS YOU ARE ABLE – JOIN FAITH TO
REASON”**

(ANICIUS BOETHIUS, TREATISE ON THE TRINITY, 515 AD)

THANK YOU

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