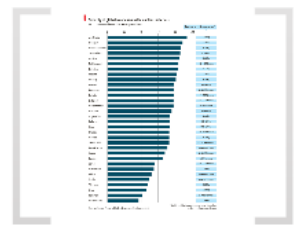
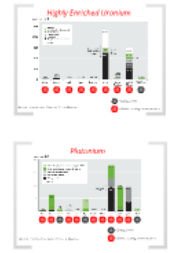


The Next Step for Arms Control
A Nuclear Control Regime

Jan Lodal and Richard Burt

The Brookings Institution
 June 26, 2012



Summary

- The world has a large stockpile of nuclear material
- The United States has the largest stockpile
- Russia and France have significant stockpiles
- The UK has a smaller stockpile
- South Korea has a very small stockpile

- Arms Control Agenda**
- Deepen US nuclear reductions
 - Nuclear Nonproliferation Treaty
 - Fissile Materials Treaty
 - Comprehensive Nuclear Test-Ban Treaty
 - Nuclear Suppliers Group
 - IAEA Efforts: INFCIRC 225, AEM Protocol
 - Convention for the Suppression of Acts of Nuclear Terrorism
 - Convention on the Physical Protection of Nuclear Material
 - Nuclear Security Summit

A nuclear approach:

- Comprehensive
- Universal
- Effective



- A Global Nuclear Control Regime is necessary**
- To help countries managing their material
 - To prevent a nuclear arms race
 - To build trust and confidence
 - To ensure international law is respected
 - To ensure global nuclear security

The Next Step for Arms Control

A Nuclear Control Regime

Jan Lodal and Richard Burt

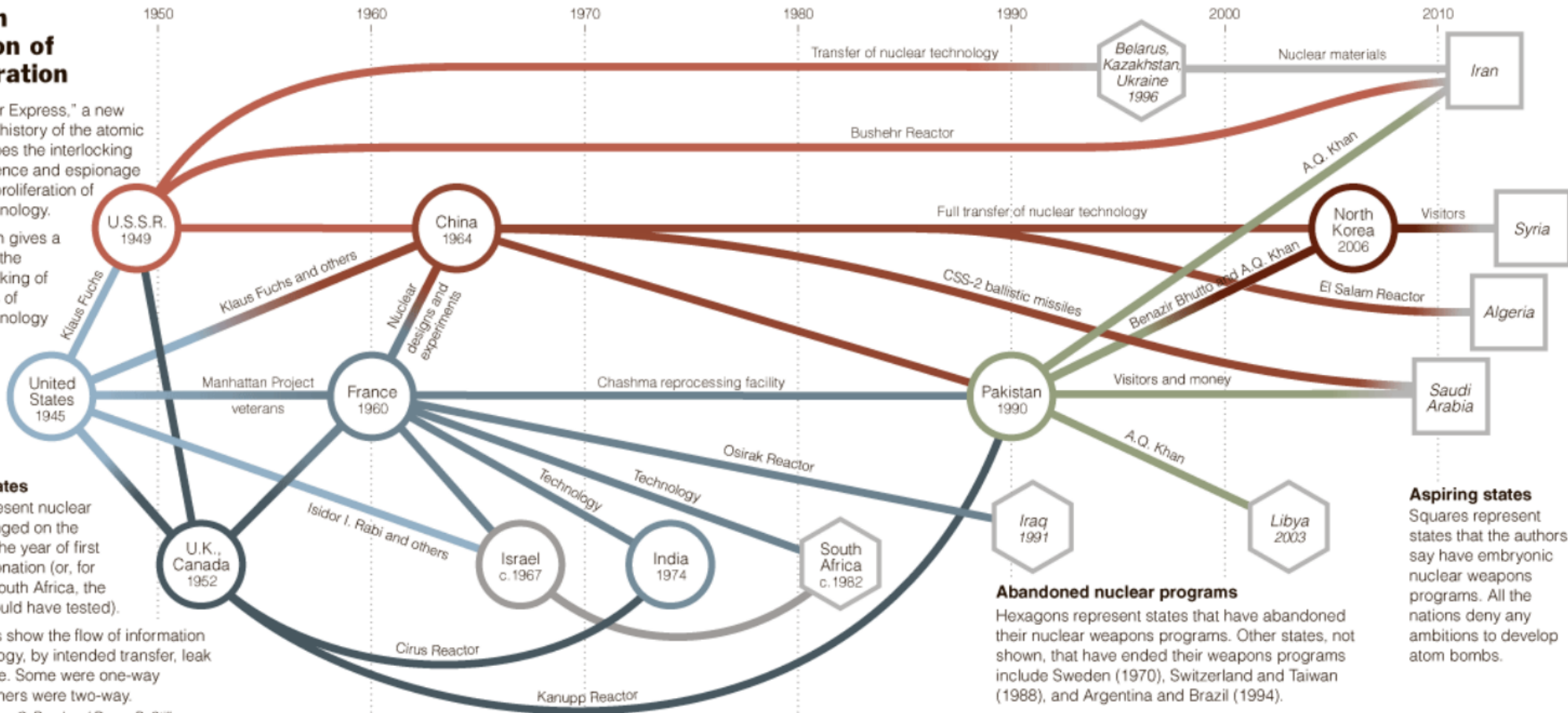
The Brookings Institution

June 28, 2012

A Chain Reaction of Proliferation

"The Nuclear Express," a new book on the history of the atomic age, describes the interlocking web of influence and espionage behind the proliferation of nuclear technology.

This diagram gives a summary of the authors' tracking of the transfers of nuclear technology and secrets.



Nuclear states

Circles represent nuclear states, arranged on the timeline by the year of first nuclear detonation (or, for Israel and South Africa, the year they could have tested).

Connections show the flow of information and technology, by intended transfer, leak or espionage. Some were one-way transfers; others were two-way.

Sources: Thomas C. Reed and Danny B. Stillman

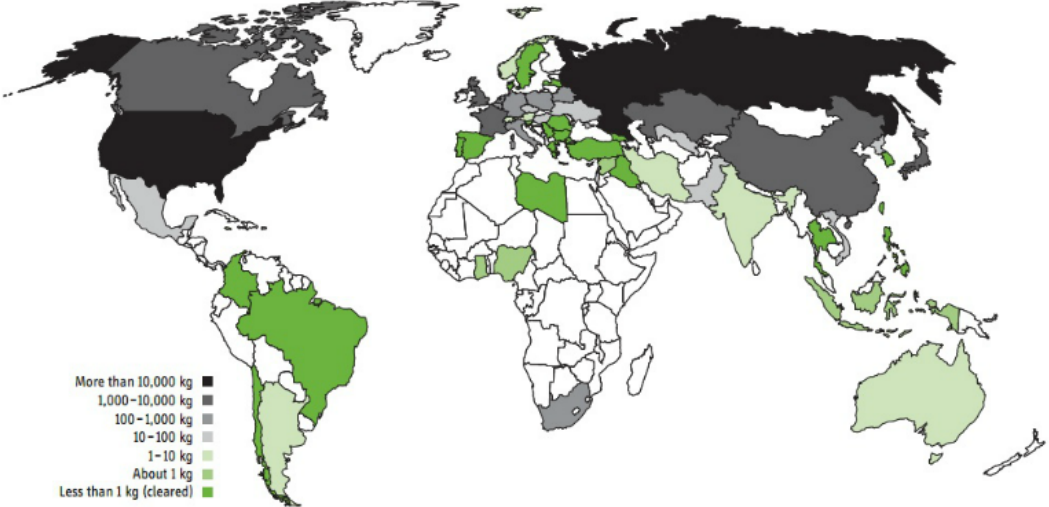
Abandoned nuclear programs

Hexagons represent states that have abandoned their nuclear weapons programs. Other states, not shown, that have ended their weapons programs include Sweden (1970), Switzerland and Taiwan (1988), and Argentina and Brazil (1994).

Aspiring states

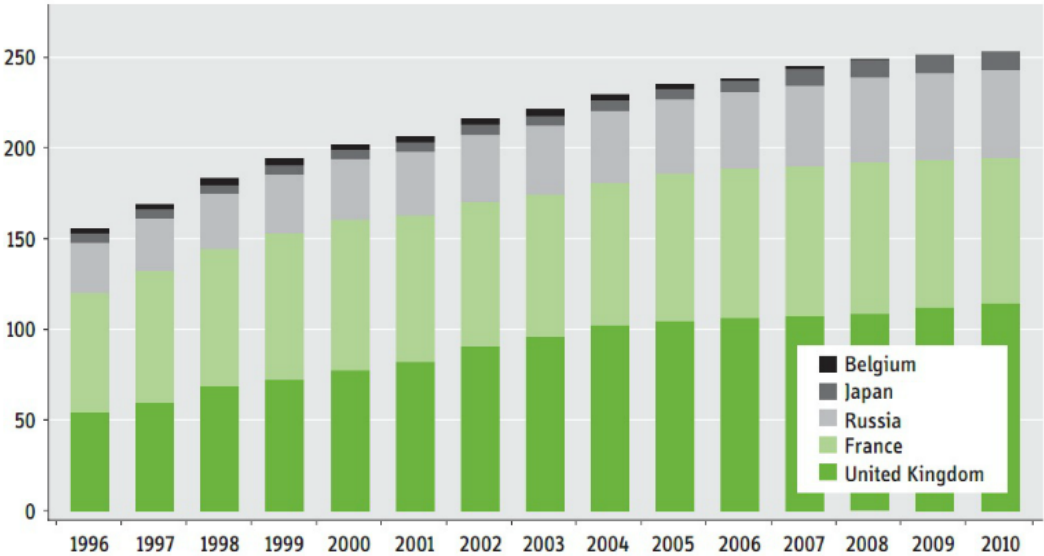
Squares represent states that the authors say have embryonic nuclear weapons programs. All the nations deny any ambitions to develop atom bombs.

Civilian Highly Enriched Uranium (HEU)



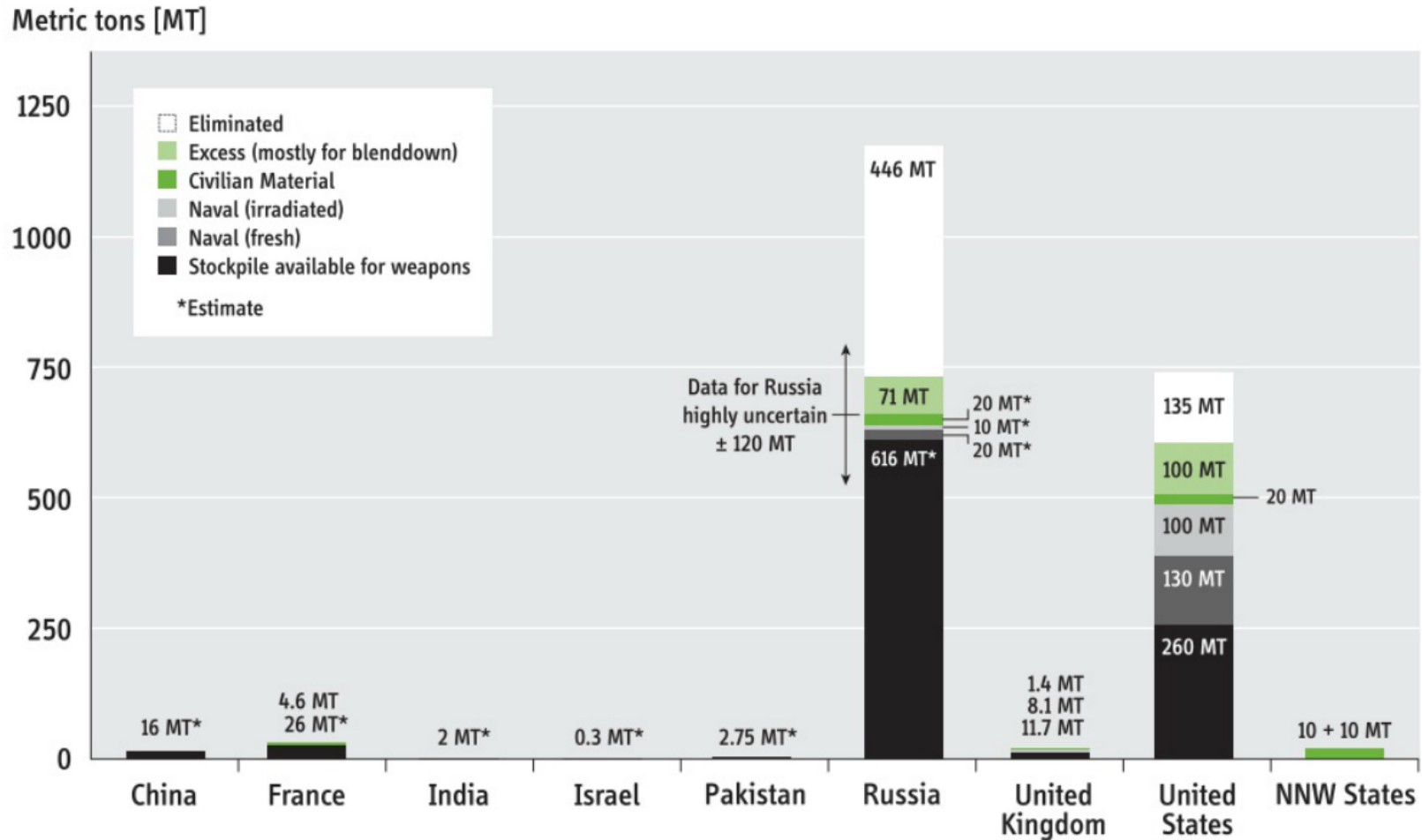
Plutonium Declared to IAEA

Separated plutonium [MT]



Source: International Panel on Fissile Materials

Highly Enriched Uranium

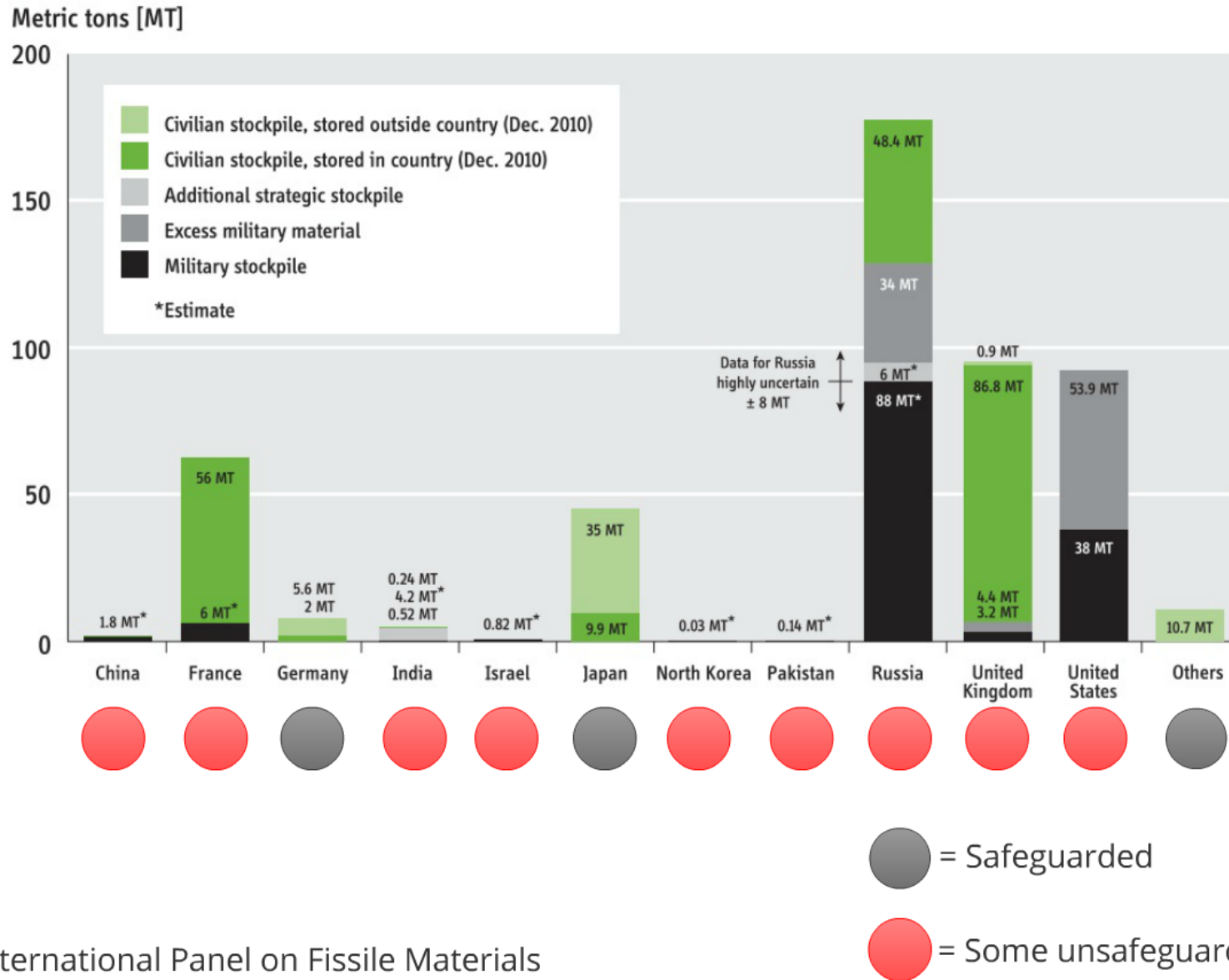


● = Safeguarded

● = Some unsafeguarded material

Source: International Panel on Fissile Materials

Plutonium



Source: International Panel on Fissile Materials

Security of global weapons-usable nuclear materials

2011, 100=most favourable security conditions



Source: Nuclear Threat Initiative, Economist Intelligence Unit

*Highly enriched uranium, separated plutonium and unirradiated mixed oxide

Arms Control Agenda

- Deeper US-Russia reductions
- Nuclear Nonproliferation Treaty
- Fissile Materials Treaty
- Comprehensive Nuclear Test-Ban Treaty
- Nuclear Suppliers Group
- IAEA Efforts: INFCIRC 225, Add. Protocol
- Convention for the Suppression of Acts of Nuclear Terrorism
- Convention on the Physical Protection of Nuclear Material
- Nuclear Security Summit

A successful approach:

- Comprehensive
- Universal
- Enforceable

Comprehensive

- All HEU and Plutonium, no exceptions
- Include material in military use
(relying on inventory control with challenge inspections for warheads)

Universal

- Logic of nuclear deterrence: one unsafeguarded program would threaten others
- Selective obligations make for difficult diplomacy
- Better safety and security needed for all states

Enforceable

- Not effective without consequences for rule-breakers
- Need veto-free UN Authority
- Enforcement in four stages:
 1. International monitoring
 2. Determination if violation has occurred
 3. Agency definition of enforcement options
 4. Enforcement by UNSC-authorized coalition



Add:

Enforcement

Verification of all
military related
nuclear material

Package with:

IAEA Additional Protocol

Nuclear Suppliers Group guidelines

UNSCR 1540

Convention on Physical Protection of Nuclear Material

Foundation:

International Atomic Energy Agency

Nuclear Nonproliferation Treaty



2012 Seoul Summit

Modest voluntary commitments

Entry into force by 2014 of Convention for the Physical Protection of Nuclear Materials

National pledges to eliminate weapons material

A Global Nuclear Control Regime is necessary.

- To keep terrorists from getting fissile material
- To prevent a second A.Q. Khan network
- To help verify a path to global zero
- To create a framework for other initiatives
- To remove diplomatic barriers to progress

Wrap-up

- *Current Efforts are Inadequate. Results will be*
 - *Not Comprehensive*
 - *Not Universal*
 - *Not Enforcable*
- *The New Regime will not constrain any state's nuclear program*
- *The basis for verification is in place*
- *The U.S. must lead by accepting the rules*
- *As more states accede, pressure on outliers can be increases*
- *The alternative is a terrorist bomb*