

# ECONOMICS OF GLOBAL THREATS

**Lucy L. Webster**

*Program Director, Economists Allied for Arms Reduction, New York, U.S.A.*

**Keywords:** accountability, alliances, assurances, biological weapons, chemical weapons, collective action, deterrence, externalities, false alarms, hegemonic, international sanctions, military-industrial complex (MIC), military spending, monitor, nuclear weapons, peacekeeping, preemptive strikes, prisoner's dilemma, private costs, public good, regional security, risk, sanctions, security, social costs, state, subsidiarity, surveillances threat, transaction costs, treaties, unintended consequences, weapons of mass destruction

## Contents

1. Introduction
  2. The Logic of Threat and Deterrence Today
  3. The Economics of Chemical and Biological Weapons
  4. Benefits and Risks of Regional Security Alliances
  5. Concluding Comments
- Biographical Sketch

### 1. Introduction

At the height of the Cold War, there were some 50,000 nuclear warheads targeted on cities and military facilities in the United States and the Soviet Union, throughout Europe, across the intra-German border, and elsewhere. It was estimated at the time that a major nuclear war using far less than half of these warheads could have killed as many as one billion people, some almost immediately, and others more slowly. It was not that any deliberate policy was directed at wrecking such catastrophic havoc—quite the contrary. The goal of vast strategic planning efforts was to prevent the use of any nuclear weapons. Even war-fighting plans for the use of nuclear weapons developed by the Reagan administration and revived by a Clinton Presidential Decision Directive of 1997 were designed primarily to increase the credibility of deterrence, which was seen as the only way to prevent the use of nuclear weapons given their large numbers and the devastation that would ensue if even one exploded on its target. Deterrence required credible threats from both sides and mutual assurances that preemptive strikes could not be conclusive and that a retaliatory second strike would not be precluded. Mutual assurances were also essential to prevent overreaction to false alarms such as flocks of birds or weather satellite launches being misinterpreted by radar.

The Cold War confrontation was fraught with risk, but there was also an embedded stability. Now in 2002 there are fewer nuclear weapons, but both the United States and Russia still have theirs on alert and ready to be fired at each other, and the risks of nuclear catastrophe are greater than ever, although the scale would be less. The greater risk comes from the deterioration of nuclear facilities in Russia and its reduced surveillance capacities that could lead to misjudgment and confusion. Risk also stems from the fact that terrorists could build and explode a bomb powerful enough to

devastate a large urban area without the need for any sophisticated means of delivery. Furthermore, the *fear* of preemptive strike, which has always been a major factor that increases the *risk* of preemptive strike, will increase significantly if the United States builds a missile defense shield because, however imperfect, this would be seen as a back-up system for initiating preemptive strikes.

In 2002 the emerging plan of the United States to develop a new capacity to actually use small nuclear weapons posed a further additional risk because it was imagined that these weapons could be sufficiently small and well controlled to be used—not just as a deterrent, but in efforts to eradicate pockets of terrorists within countries that harbor them or that might themselves use nuclear weapons. The economic costs of the new post-Cold War forms of deterrence will be high. Research and development to build the missile shield will cost hundreds of billions of dollars, and efforts to make small, relatively contained nuclear warheads will also be expensive. Then the countries that are identified as potential targets for these new nuclear capacities will almost certainly increase their own nuclear weapons arsenals to enhance their abilities to pierce the planned missile shield and to deter strikes by small tactical weapons.

Consequently, the world is more at risk of disaster from nuclear weapons and other weapons of mass destruction than ever before.

Chemical and biological weapons have been called the poor country's nuclear deterrent. Certainly the costs are lower and the technology more accessible. The main constraints on the development and deployment of chemical and biological weapons are not the costs or the technical feasibility, but the problems of "blowback". World War I demonstrated the most basic problem of preventing chemical weapons from harming the troops of the country that deploys them. These facts have not changed in any major way, and the risks of blowback and epidemics spread by biological weapons are even greater. In spite of these limitations on any potential controlled military use of these weapons, it is clear that various terrorist groups and states have attempted to obtain chemical and biological weapons.

At the same time, treaties to outlaw these weapons have been more comprehensive than the efforts to limit nuclear proliferation. There are 145 states which are parties to the Chemical Weapons Convention that prohibits all production, stockpiling and use of chemical weapons, and which specifies procedures for the elimination of those that exist. Although the CWC is probably the most thorough arms reduction treaty ever written with the most explicit provisions for full implementation, it is clear that a number of parties have not yet destroyed their stocks of chemical weapons as required by the treaty, and other parties have attempted to develop new chemical weapons. The Biological Weapons Convention has 144 parties and similar provisions to the CWC, and there are even more extensive questions about its ability to ensure compliance, mainly because biological weapons are inherently easy to hide and difficult to monitor. The main treaty in effect for nuclear weapons is the Nuclear Non-Proliferation Treaty of 1970. It has 187 parties, most of which have pledged not to make or receive nuclear weapons, but it explicitly allows the original nuclear weapon states (China, France, Russia, the U. K. and the U. S.) to retain and develop nuclear weapons; and India, Pakistan and Israel are not parties to the NPT.

The international treaties designed to prevent or limit the possession or use of weapons of mass destruction exist in a context of political, military and economic competition between states. Thus, treaties are not expected to ensure total compliance, but to provide a framework that makes it awkward to renege, especially because adversaries might well reciprocate. The competitive environment and the potentially serious consequences of non-compliance raise fundamental questions about the efficacy of confrontational security alliances. The destructive potential of weapons of mass destruction is inherently global. It would not take any large part of the arsenal of nuclear weapons to kill millions of people, nor would the epidemiological effects of the military use of certain biological agents be confined to specific regions or countries. Within this context, an examination of the costs and benefits of various alliances should give particular attention to the externalities generated by less-than-global efforts to provide security. While global peace is clearly a pure public good that benefits all nations whatever their number, one needs to assess objectively whether each specific regional alliance is a net public good for its members, or whether the externalities generated cancel its benefits. Also, one needs to examine whether an alliance is a public good for nations that are not members.

- 
- 
- 

**TO ACCESS ALL THE 11 PAGES OF THIS CHAPTER,  
Visit: <http://www.eolss.net/Eolss-sampleAllChapter.aspx>**

#### **Biographical Sketch**

**Lucy Law Webster** is Senior Fellow of the Institute for Global Policy and the UN NGO representative of Economists Allied for Arms Reduction (ECAAR) where she is also a member of the Board of Directors. From 1981 to 1995 she worked in various parts of the United Nations secretariat. She was an information consultant in UNICEF, UNDP and UNEP and then Special Assistant to the Secretary General of the Second World Conference to Combat Racism. From 1988 until her UN retirement she was a Political Affairs Officer serving as Assistant Secretary of the First Committee of the General Assembly, as Secretary of the UN Disarmament Commission Working Group on Science and Technology for Disarmament and Development, as Editor of two UN publications concerning disarmament, and as the press and NGO liaison officer for the 1990 and the 1995 NPT Review Conferences. After leaving the UN Secretariat she worked as a staff director of ECAAR. Prior to joining the UN secretariat she worked in international opinion and marketing research based in London England and as an honorary officer of the World Federalist Movement. She has a BA degree in Political Science from Wellesley College, an MSc in International Relations from Long Island University and is currently a student in the Economics Department of the Graduate Faculty of the New School University in New York City.