In recent years, the “vision of a world without nuclear weapons” has gained near-universal acceptance among governments. Yet all nine nuclear-armed nations continue to inject billions of dollars a year into programmes to upgrade and modernize their nuclear forces—with the clear intention of retaining these illegal, immoral, and inhumane weapons for many decades to come. What can be done to halt this great diversion of public wealth into instrument of mass destruction? How can we transform the oft-stated “vision” of nuclear abolition into reality?

In order to ban the use and possession of nuclear weapons by all states, we must effectively challenge the modernization of nuclear arsenals. Groups and individuals are doing this by protesting at factories and laboratories where nuclear weapons are designed and manufactured, raising community awareness, initiating legal actions to bar construction of new nuclear weapons facilities, and lobbying elected representatives to reject budgetary requests for work on nuclear weapons. Some campaigners are also employing economic means—boycotts and divestment—to challenge the nuclear weapons complex.

In four of the nine nations that possess nuclear arms—the United States, Britain, France and India—private companies are heavily involved in the design, manufacture, modernization, and maintenance of nuclear warheads, their delivery vehicles (missiles, submarines and bombers), and related infrastructure. Elsewhere in the world, nuclear weapons modernization is carried out primarily or exclusively by government-owned entities, making boycott and divestment campaigns more difficult to pursue.

Boycotting is a method that targets unethical companies directly. A well-known example of a nuclear weapons boycott is the campaign initiated in the 1980s by Infact—now called Corporate Accountability International—against General Electric, which had been majorly involved in nuclear bomb making since the Manhattan Project.1 The boycott ultimately succeeded in forcing the conglomerate to abandon its nuclear weapons enterprise. It had been particularly vulnerable because, unlike most other makers of nuclear weapons, it sold consumer goods. Boycotts can also be applied more generally, as in the case of the boycott of all French products in the 1990s, which helped to bring an end to nuclear testing in the South Pacific.

Divestment is different from boycotting in that it focuses on financial institutions—banks, asset managers, insurance companies and pension funds—that invest in nuclear weapons companies, either by providing capital loans or through the ownership of bonds or shares. A notable example of divestment is the decision in 2004 by the Norwegian government pension fund—one of the largest sovereign wealth funds in the world—to sell off major shareholdings in several nuclear weapons companies.2 Two government entities in New Zealand, the Accident Compensation Fund and the Government Pension Fund, have also divested from nuclear weapons stocks in response to public pressure.3 A growing number of commercial banks are similarly adopting policies that proscribe investments in nuclear arms.

Divestment campaigns have been especially effective in countries that do not possess nuclear weapons, as the public is more likely to be surprised and angered by revelations that their financial institutions are investing in the makers of nuclear weapons. However, divestment can also be effective in nuclear-armed states, particularly at a local level. For example, students have been known to influence the investment decisions of their university boards, and large church groups have taken steps to ensure that their funds are not invested in the nuclear arms industry.

Divestment helps to establish, or reinforce, the illegitimacy of the nuclear weapons industry by building understanding and acceptance of the illegality of these weapons and drawing attention to the catastrophic humanitarian and environmental harm they cause. The ultimate aim of divestment is to force nuclear weapons companies to withdraw from the industry, fearing financial losses or damage to their reputation.

Where the manufacture of nuclear weapons accounts for only a small proportion of a company’s overall turnover, it will be more likely to assess whether the profits from such work are outweighed by the damage caused to the company as a whole—as in the case of the General Electric boycott. Similarly, companies that
sell consumer wares will be more concerned about potential damage to their brand than companies engaged only in armaments production. Therefore, certain nuclear weapons companies will be more vulnerable than others to divestment campaigns.

It is crucial to understand that vested interests in nuclear arms production are a major impediment to disarmament. The nuclear weapons industry is booming, with more than US$100 billion spent on nuclear weapons programmes globally in 2011, much of which went to private military contractors. These companies employ lobbyists to patrol the corridors of power in search of the next big deal. If companies choose to withdraw from the industry because of the commercial harm caused to them by divestment, decision makers will feel less pressure to continue investing in nuclear weapons modernization programmes.

Simon O’Connor, an economic adviser to the Australian Conservation Foundation, explains the practical benefits of divestment as follows: “Divestment sends the strongest signal that the activities of a company are not acceptable. Although it is rare that a share price will be materially impacted upon by a divestment decision of a single investor, the divestment can send a strong signal to the board of the company that its activities will not be tolerated, and can catalyse change within the business. It also sends a strong signal to other investors that the company is engaged in activities that are unacceptable.”

A significant advantage of the divestment approach is that it can be put to use almost anywhere. In today’s globalized economy, many thousands of individuals and institutions around the world are directly or indirectly—and, more often than not, unwittingly—involving in financing nuclear weapons companies. Any person with a bank account or pension fund has the power to choose not to invest in nuclear arms producers, and can encourage friends, family members, and colleagues to withdraw their money from banks that refuse to divest from such companies. Divestment is a mechanism with which we can harness the widespread and overwhelming public opposition to nuclear weapons to achieve tangible results.

**COMPANIES INVOLVED**

**US companies**

Most companies involved in nuclear weapons work are based in the United States, which is estimated to spend in excess of US$60 billion a year maintaining and upgrading its nuclear arsenal—twice the amount it spends on foreign aid. It has the most active and ambitious nuclear weapons modernization programme of any country, involving the complete overhaul of its nuclear missiles, submarines, and bombers, and the construction of three new nuclear weapons factories. The following ten companies, among others, are heavily involved in the US nuclear weapons industry:

- **Alliant Techsystems**, or ATK, which produces rocket propulsion systems for Trident II submarine-launched ballistic missiles and Minuteman III intercontinental ballistic missiles.
- **Babcock & Wilcox**, which supplies the US government with nuclear components for its defence programmes and operates the Pantex plant of the National Nuclear Security Administration, where it modernizes nuclear warheads.
- **Bechtel**, which manages the Los Alamos and Lawrence Livermore national laboratories, where nuclear weapons are researched, designed, and developed, and the “safety and reliability” of the current US nuclear stockpile is monitored.
- **Boeing**, which maintains the Minuteman III intercontinental ballistic missiles in the US arsenal, being responsible for guidance, flight controls, weapons systems testing and engineering.
- **GenCorp**, which is involved in the design, development, and production of land- and sea-based nuclear ballistic missile systems. It is currently producing propulsion systems for Minuteman III and D5 Trident nuclear missiles.
- **General Dynamics**, which provides maintenance, engineering, and technical support for US nuclear-armed submarines. It built the **Ohio**-class submarines for the US navy, many of which are equipped with Trident nuclear missiles.
- **Honeywell International**, which produces approximately 85 percent of the non-nuclear components for US nuclear weapons, and is involved in simulated nuclear testing and the life-extension programme for the US navy’s Trident II nuclear missiles.
- **Jacobs Engineering**, which owns a one-third share in the United Kingdom’s Atomic Weapons Establishment, where it designs, manufactures, and maintains British nuclear warheads.
- **Lockheed Martin**, which is involved in the production and maintenance of nuclear weapons for both the United States and the United Kingdom, being responsible for the construction of submarine-launched Trident II D5 nuclear missiles.
- **Northrop Grumman**, which leads a joint project responsible for producing and maintaining the Minuteman III nuclear missiles, roughly 500 of which form the core of the US nuclear arsenal.
**UK companies**

Many British companies are also involved in nuclear weapons work—maintaining the existing fleet of Vanguard-class Trident nuclear-armed submarines or developing the proposed new fleet of nuclear-armed submarines. Although a final decision has yet to be made on whether to renew Trident, considerable work is already underway, with the Department of Defence having made sizeable financial outlays. Some British companies are also involved in the French nuclear weapons programme. Major nuclear weapons companies in the United Kingdom include:

- **Babcock International**, which is involved in developing the new class of nuclear-armed submarine and maintaining the country’s existing fleet of submarines.
- **BAE Systems**, which is part of a joint venture that is producing nuclear missiles for the French air force, and is also involved in developing Britain’s proposed new nuclear-armed submarines.
- **Redhall Group**, which carries out mechanical and electrical engineering activities at the Atomic Weapons Establishment in Aldermaston and Burghfield.
- **Rolls-Royce**, which is part of the joint venture to develop the new class of nuclear-armed submarine, and also maintains the existing fleet of submarines.
- **Serco Group**, which owns a one-third share in the joint venture that runs the Atomic Weapons Establishment, and is responsible for designing, manufacturing and maintaining nuclear warheads.

**Other companies**

Several other companies are involved in nuclear weapons work, mostly for France. These include:

- **EADS** (European Aeronautic Defence and Space Company), a Dutch company that produces and maintains submarine-launched nuclear missiles for the French navy, and is part of a joint venture responsible for building new nuclear missiles for the French air force.
- **Finnmeccanica**, an Italian company that holds a one-quarter share in MBDA, the joint venture building nuclear missile for the French air force. The missiles are capable of being launched from the Mirage 2000N fighter plane and the new Rafale fighter plane.
- **Safran**, a French company that is part of a joint venture to build the new M51 submarine-launched missiles for the French air force, which can each deliver multiple nuclear warheads. Its subsidiaries provide the propulsion and navigation systems for these missiles.
- **Thales**, a French company that is also involved in the contract to build M51 nuclear missiles for the new French submarines, with an estimated value of €3 billion. EADS’s subsidiary Astrium is the lead contractor, whereas Thales is a main subcontractor.

At least one company, **Larsen & Toubro**, is heavily involved in the Indian nuclear weapons programme. L&T is responsible for designing and constructing five nuclear-armed submarines for the Indian navy, each of which is equipped with a dozen K-15 ballistic missiles. The company has also tested a launch system for India’s nuclear missiles.

**INVESTMENT POLICIES**

Many financial institutions apply ethical standards, such as the UN Principles for Responsible Investment, when deciding how to invest their funds. These standards take into account environmental, social, and corporate governance factors. Investing in companies that manufacture and modernize nuclear weapons constitutes a grave breach of ethical investment norms, as nuclear weapons are illegal to use and cause catastrophic and prolonged humanitarian and environmental harm.

Some financial institutions, in addition to maintaining general ethical investment or sustainability policies, have defence policies expressly stating that they will not invest in nuclear armaments. However, these policies on nuclear weapons investments typically fall short of imposing a blanket ban on the financing of nuclear weapons companies. For example, some banks only rule out providing loans that are specifically intended for nuclear weapons work, while permitting loans to nuclear arms makers for general corporate purposes.

Their distinction between so-called direct and indirect financing does not stand up to scrutiny. All nuclear weapons companies are engaged in a diversity of enterprises, many of which are non-nuclear in nature. (For example, Boeing builds commercial jetliners.) To the author’s knowledge, none of these companies source direct finance from banks and other financial institutions solely for the purpose of producing nuclear weapons. Instead, they raise money through corporate loans, syndicated loans, bond issues, share placements, and share ownership. This money is allocated in whatever way the company sees fit. It is of little consequence whether the financier or investor did or did not intend for the money to be used for nuclear weapons production (absent a specific mechanism to prevent the money from being used for that purpose).

In short, nuclear weapons companies raise finance for “general corporate purposes,” and a proportion of these funds are invariably used to produce nuclear weapons. If banks and other financial institutions wish to avoid facilitating the build-up and modernization of nuclear arsenals, they must adopt more stringent policies that exclude the financing of nuclear weapons companies altogether. The existing policies of some financial institutions have little if any practical effect given that nuclear weapons companies do not seek finance from banks and other financial institutions specifically for nuclear weapons work.
A few large banks do, however, appear to exclude all major nuclear weapons companies entirely from their investment universe. For example, Rabobank, which is based in the Netherlands, does not invest in any of the 20 nuclear weapons companies mentioned above. Its policy states: “From a moral point of view, Rabobank should refrain from facilitating the armaments industry, unless the player is a company that only supplies non-controversial or armaments-related products. Rabobank currently deems the following armaments to be controversial: cluster munitions, anti-personnel mines, nuclear, biological and chemical weapons.”

Similarly, PGGM, a leading Dutch pension administrator with over €119 billion of pension assets for more than 2.3 million participants, does not appear to invest in any of the 20 nuclear weapons companies. It has a policy of excluding companies from investment “if they are involved in the manufacturing or trading of weapons of which the use will cause violation of fundamental human rights.” The fund states: “Any company with a substantial involvement in the manufacturing or trading of [weapons of mass destruction] will be directly excluded from our investments.” Other financial institutions should follow the lead of PGGM and Rabobank.

In countries where public sentiment against nuclear weapons is particularly strong, banks, pension funds and other financial institutions that refuse to divest from nuclear weapons producers could well find that their customers start searching for more ethical alternatives. While most of the large mainstream financial institutions have not yet adopted policies screening nuclear weapons producers, there are many smaller, ethically minded financial institutions around the world that not only avoid providing money to the nuclear weapons industry, but refuse to invest in armaments altogether. Typically, these institutions fund companies that make a positive contribution to society, for example, through the development of renewable energy sources or community-based projects.

Thus, divestment from nuclear weapons producers can be viewed as part of a broader social and economic agenda involving the redirection of wealth away from the manufacture of weapons and the wasting of war and towards socially useful enterprises. Despite our leaders’ repeated pledges to disarm, the nine nuclear-armed nations continue to spend in excess of US$100 billion every year maintaining and modernizing their nuclear forces—diverting public resources away from dealing with the many scourges that afflict the world. Although it may at times seem difficult to influence how our governments allocate money, we each have the power to determine how our own money is invested. We can challenge our banks and pension funds to do the right thing, and seek alternatives if they refuse to listen.

**Why Divest?**

There is a strong legal basis for divesting from nuclear weapons companies. Any use of nuclear weapons would be a grave breach of international humanitarian law, which prohibits the use of weapons that are incapable of distinguishing between civilians and combatants, inflict superfluous injury and unnecessary suffering, have uncontrollable effects, and cause widespread, long-term, and severe harm to the environment.

Under international law, not only is it illegal to use nuclear weapons, the threat of use is also forbidden. Threats include specific signals of intent to use nuclear weapons if certain demands are not met, as well as general policies declaring the readiness to resort to nuclear weapons when vital interests are at stake. The doctrine of nuclear deterrence—which involves the threat of using nuclear weapons—is therefore contrary to international law. A primary purpose of nuclear weapons modernization programmes is to ensure that the threat of use is “credible.”

The vast majority of nations have made a legal undertaking never to manufacture or acquire nuclear weapons, and the International Court of Justice—the highest authority on general questions of international law—has affirmed that there exists a universal obligation, based in the nuclear Non-Proliferation Treaty (NPT) and customary law, to accomplish the complete elimination of nuclear weapons through good-faith negotiations. According to international law scholar John Burroughs, “It cannot be lawful to continue indefinitely to possess weapons that are unlawful to use or threaten to use, are already banned for most states and are subject to an obligation of elimination.” He explains that “[g]ood faith means abiding by agreements in a manner true to their purposes and working sincerely and cooperatively to attain agreed objectives”. The modernization of nuclear forces “undermines or renders impossible achievement of the objective of global elimination of nuclear arsenals”, as it “stimulates qualitative nuclear arms racing, instead of marginalization of nuclear forces as they are reduced and eliminated”. Even if the only aim of modernization were to maintain existing military capabilities, “[t]he long time frame for planning and executing such modernization, on the order of several decades, and the substantial spending involved, erodes the credibility of arms control and disarmament commitments and measures.”

In addition to the legal imperative to divest from nuclear arms makers, there is also a strong ethical argument. In 2010 the parties to the NPT acknowledged “the catastrophic humanitarian consequences of any use of nuclear weapons”, and in 2011 national Red Cross and Red Crescent societies adopted a landmark resolution stressing “the incalculable human suffering that can be expected to result from any use of nuclear weapons, the
lack of any adequate humanitarian response capacity and the absolute imperative to prevent such use. A single nuclear bomb dropped on a large city could kill more than a million people in an instant. The lingering effects of radiation on human beings cause suffering and death many years after the explosion.

The nuclear weapons industry is the most illegitimate of all industries. It threatens every one of us. Yet mainstream financial institutions across the world continue to invest in companies that participate in this grossly immoral, earth-endangering industry. It is up to civil society to act to stop this complicity. It is time for a global divestment campaign to challenge the build-up and modernization of the world’s most destructive weapons. Such a campaign will be vital to the success of a genuine, total ban on these ultimate instruments of terror.

NOTES
28. The principles are set out here: www.unpri.org/.
29. The International Committee of the Red Cross—which is the guardian of international humanitarian law—has said that it is “difficult to envisage how any use of nuclear weapons could be compatible with the rules of international humanitarian law” speech delivered by Jakob Kellenberger, “Bringing the Nuclear Weapons Era to an End,” Geneva, 20 April 2010.
32. Don’t Bank on the Bomb, op. cit., p. 11.
36. Ibid.
38. International Court of Justice, Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, 6 July 1996, para. 78. “If an envisaged use of weapons would not meet the requirements of humanitarian law, a threat to engage in such use would also be contrary to that law.”
39. See Article II of the NPT. There are currently 184 non-nuclear-weapon states parties to the Treaty.
40. International Court of Justice, op. cit., para. 105.
41. Don’t Bank on the Bomb, op. cit., p. 28.
42. Ibid.
43. Ibid.