

## **Current and Future Weapons of Mass Destruction Proliferation Threats**

### **Testimony of James Lewis**

Senior Fellow and Director, [Technology Policy](#)  
Center for Strategic & International Studies

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Mr. Chairman, let me thank you and the other members of the Committee for the opportunity to testify on the effectiveness of export controls in curbing the proliferation of material and technology used for weapons of mass destruction.

Through the 1980s and 1990s, the U.S. created an extensive export control architecture. Export controls became an important tool to slow the spread of sensitive technologies to states of concern. However, over the last decade, two major developments have changed the significance of export controls for national security. First, a far more complex security environment has replaced the tidy Cold War alignment of friends and foes. International security is now complex and unpredictable. Second, the global economy has evolved in ways we did not foresee when the U.S. established its export controls.

The result is that export controls grow less effective every year. This is particularly true for dual-use export controls. The principle reason for this is the continuing economic development and integration of countries around the globe. Fewer obstacles and lower costs for international trade mean that industries and production are increasingly international. The volume of international trade has tripled in the last fifteen years. Improvements in communications technologies make it easy to transfer data and ideas around the world in a few seconds. Container ships and jumbo jets have made transportation cheap and easy, allowing millions of tons of cargo and millions of people to travel around the world every year. These changes have significant implications for U.S. security, particularly for counter-terrorism and for nonproliferation.

Business and science have become more international and more collaborative. International research and development alliances among corporations has increased eight-fold since the mid 1980s. Companies place plants or development centers in different countries or even different continents. They move their research and development ideas rapidly among these facilities to gain competitive advantage in a global market place. Scientific capabilities have also diffused around the world, as more countries build scientific and research institutions and as scientists find that they gain an advantage from research conducted by multinational teams of specialists in different countries.

For nonproliferation, these changes make it harder to deny access to technology, especially as much of the technology needed for weapons of mass destruction does not need to be particularly advanced. Proliferators can use industrial equipment from the 1970s or even 1950s to build weapons of mass destruction. Determined nations, such as Iraq, Iran or North Korea will be able to continue their WMD programs despite export control efforts. Iraq exemplifies this best, for despite the most restrictive sanctions regime in the world, it has been rebuilding its WMD programs.

## **Multilateral Regimes and Nonproliferation**

While export controls have become less useful, the Missile Technology Control Regime, the Australia Group and the Nuclear Suppliers Group continue to make positive contributions to security. The characteristics that make the regimes more effective are:

- They have strong multilateral support, so a denial by one country will not be "undercut by another."
- There is broad consensus to prevent exports that contribute to WMD proliferation.
- They focus their efforts on specific chokepoint technologies.
- They have good mechanisms for information sharing and consensus building on projects of concern.

These characteristics are a good test for measuring the effectiveness of national export controls. In an era of economic globalization, a single country's export controls will be ineffective unless it focuses on key technologies and other nations follow similar practices. Export controls can remain effective in an era of economic integration and globalization only if they focus on technologies that are not widely available in the world market and if they have a high degree of multilateral support.

A fourth regime, the Wassenaar Arrangement, demonstrates the need for focus and cooperation. Unlike the three nonproliferation regimes, the Wassenaar Arrangement is ineffective. There is little consensus among Wassenaar members on its mission or on what technologies are crucial for control. As a result, we can no longer prevent countries from acquiring many items on the Wassenaar control list.

However, Wassenaar has little to do with nonproliferation. It focuses on controlling conventional dual-use technologies. Many of these technologies are not key WMD technologies and not controlled by other countries for proliferation purposes. Items on the Wassenaar List that are useful for WMD are already controlled by the three nonproliferation regimes. This is because when the Wassenaar Arrangement was established, our allies insisted that any item or technology for weapons of mass destruction be moved from Wassenaar control lists to one of nonproliferation regimes. The result is that for WMD, Wassenaar controls are redundant.

### **"Catch-All" Controls**

Wassenaar controls are also redundant for nonproliferation if a country has effective "catch-all" controls. "Catch-all" controls apply to any export when the intended recipient is a proliferation-related entity. The U.S. created its "catch-all" control, known as EPCI (Enhanced Proliferation Control Initiative), in response to Iraqi efforts in 1990 to acquire U.S. equipment for WMD production. EPCI allows the U.S. to stop shipments of any item going to questionable end-users for proliferation related purposes. It allows the U.S. to impose licensing requirements on exports and reexports of any good and technology where there is a risk of diversion to WMD or missile proliferation. This remains an important part of U.S. export controls.

EPCI also gives the U.S. the authority to "inform" an exporter that a foreign entity is ineligible to receive U.S. goods without prior approval. The informing process can occur through a letter to the U.S. exporter or through publication of an entity or list of entities in the Federal Register Notice. Once listed, exporters must obtain a license before selling to these entities. This authority also remains essential.

Finally, EPCI requires exporters to screen potential sales to avoid transfers to WMD programs. Exporters must apply for a license whenever they 'know or have reason to know' the export could be associated with WMD-related activities. Screening is the least effective part of EPCI because of changes in business practices and because of problems in sharing information with exporters. Finding ways to increase information sharing and refine EPCI screening would make U.S. export controls more effective, and continuing the U.S. effort to encourage more countries to adopt strong catch-all controls would make multilateral nonproliferation efforts more effective.

### **Problems for Nonproliferation Export Controls**

The distinction between Wassenaar and the WMD regimes has important implications for U.S. export controls. Many recent debates on export controls have been over items that fall under the Wassenaar regime, such as satellites, machine tools and computers. Other countries would not regard these as proliferation-related. Our difficulties in moving from Cold War technology controls to a nonproliferation export control system have hampered efforts to make export controls more effective and have drawn attention away from the larger problems that confronts nonproliferation export controls.

These larger problems result from the evolution of the international security environment. WMD-related export controls are part of a larger nonproliferation strategy that uses diplomatic pressure and sanctions to persuade potential WMD producers to end their programs. Export controls, by slowing these programs and making them more costly, give time for diplomacy to work. This approach was developed in the early 1990s and it has met with considerable success. A number of countries abandoned their WMD programs in light of the combination of diplomatic pressure and export controls. However, a small core of determined nations continued with their weapons programs irrespective of diplomatic pressure, export controls or sanctions.

We now need to reconsider the original diplomatic rationale for WMD export controls in dealing with these nations. Export controls still slow WMD programs and make them more costly, but they will not stop them. In one case, North Korea, a new approach that used economic incentives and a broader effort to address fundamental security issues seems to have paid off. However, India and Pakistan have been able to develop nuclear weapons (and in India's case, long-range missiles), and Iran and Iraq continue to pursue the acquisition of WMD. We cannot rely on export controls and sanctions to stop these programs, and one of the challenges for the U.S. will be to find a new approach to nonproliferation.

In addition to facing these very difficult problems in the old nonproliferation paradigm, we face new problems with "non-state actors" who seek to acquire WMD. These are principally terrorist groups and they pose a serious challenge to current nonproliferation controls, which were aimed at countries and large government programs.

Nonproliferation is now more than an arms control problem to be approached in the traditional diplomatic and military context. This means less emphasis on traditional nonproliferation activities, where foreign ministries agree on licensing policies and demarches and more emphasis cooperation in law enforcement and intelligence. Export licensing will be less important for dealing with efforts by terrorist organizations to acquire WMD. Most WMD export controls focus on exports of production equipment and capital goods. Terrorists are unlikely to acquire these items. Terrorists will not be applying for licenses and they may not even try to export material. A more plausible scenario is that terrorists will attempt to acquire WMD-related materials in the country where they intend to use them, bypassing all of the current export control mechanisms.

For example, while most countries have strong export controls in place for the export of spent nuclear fuel, it is not clear that all of them have taken the necessary steps to safeguard this fuel from theft. A terrorist organization could steal spent nuclear fuel and use it to build radiological

weapons. These weapons do not require the extensive infrastructure and investment needed for nuclear arms. Similarly, security measures at many U.S. and foreign laboratories are not adequate to prevent the theft of dangerous biological samples. In the U.S., samples of some pathogens like smallpox are kept under very tight security, but samples of others, like anthrax, are housed in research laboratories across the country with minimal safeguards. International cooperation, and domestic security measures may be as important today for nonproliferation as export controls.

As part of the reorientation of U.S. security policy since September 11, nonproliferation must become a part of the larger, integrated system of homeland security and the response to terrorism. The nonproliferation regimes can still make important contributions by identifying WMD-related items that need additional safeguards and by coordinating the development of effective and mutually reinforcing security measures. They can also provide a forum for the exchange of information on common threats, between law enforcement and internal security agencies as well as diplomatic and intelligence agencies. WMD-related technology transfer should form a part of a larger homeland defense policy. Effort to ensure that WMD does not fall into the hands of terrorists must become part of a multilateral defense against terrorism, and the support we have received from our allies since September 11 could be channeled into reinvigorating cooperative efforts to deal with WMD proliferation.

### **"Deemed Exports"**

The larger counterterrorism and homeland defense effort also has implications for "deemed exports." A "deemed export" occurs when a person comes to the United States and learns something. Students coming to the U.S. or other countries to study and do research at universities and labs have been a problem for nonproliferation for many years. The automatic response is to ban foreign students or require that they all be licensed. This would be a fiasco. Hundreds of thousands of students enter the U.S. every year. In almost all cases, our intelligence agencies have no information about them, not because of any failure in collection but because these people have never been anything other than legitimate students and there is no information to collect. A license review based on no information is open to question as a protective measure.

Expanding "deemed export" controls can also have a hidden cost for the U.S. One of the sources of U.S. technological strength is that many of the best minds in the world are attracted here to learn and to work. The benefits we receive from having these people here outweighs the potential cost of technology leaks. This was the conclusion that the Reagan Administration came to in National Security Decision Directive 189, and this decision should remain the core of our policy.

Most "deemed export" licenses are for information technologies, not proliferation-related technologies. The challenge is not to try to find some way to keep using export control techniques developed for the Cold War, but to think in terms of a larger approach to homeland security. Immigration control is among the most serious vulnerabilities revealed by September 11. Greater international cooperation in immigration control and improved screening and tracking processes for foreign visitors is one of the imperatives for Homeland Defense. As the U.S. improves immigration screening, it may want to rely less on export licensing to govern technology transfer in the U.S. Export licenses should only be required when positive information is developed regarding proliferation-related risk. Our current practice, which is to let people in with a visa or license and then ignore them, is no longer supportable.

### **Building Strong Nonproliferation Controls**

Export controls can still play a role in nonproliferation and national security, but this role is shrinking. Building an export control system that will serve nonproliferation and national security in the 21st century will not be easy. The consequences, however, of failing to reform could be

costly. In looking at how to move ahead in export controls and nonproliferation, we may want to consider the following:

- The U.S. needs to reexamine the fundamental approach to nonproliferation export controls (buy time for diplomacy") that we have taken for the last ten years.

- We would benefit from strengthening nonproliferation regimes by expanding their role to include not just diplomatic and arms control functions, but additional law enforcement and counterterrorism functions as well.

- The U.S. should seek to find ways to use the strengths of the three nonproliferation regimes to support efforts in homeland defense and counterterrorism.

- Trying to control access to items that are widely available on the global market wastes time and resources without slowing WMD programs. U.S. export controls will be more effective if they focus on the items listed by the three nonproliferation regimes.

- Work on deemed exports should focus less on licensing and more on a broader solution to foreign visitor screening system that includes nonproliferation information as part of the process.

- Effective nonproliferation export controls can be built with the lists and procedures of the three nonproliferation regimes, the use of catch-all controls and improved immigration procedures.

Finally, in considering how to adjust export controls to better support nonproliferation after September 11, we must be careful in assessing whether new measures cost more, in both civil liberties and long term economic and technological strength, than the benefits they provide.

Thank you.