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Strategic Trade Controls

Daniel H. Joyner[1]

I was asked by the editors of this volume to contribute a chapter on strategic trade controls (STCs) and their role in the international WMD nonproliferation legal regime. I was very pleased to take on this assignment, because this is an area of law and policy that I have worked on academically for many years, and in more recent years have practiced in an advisory capacity for a number of developing state governments.

The establishment and maintenance of an effective STC system is an often overlooked and undervalued element in the broader context of international WMD nonproliferation law. However its importance at the practical level in the effort to regulate the spread and use of goods and technologies that can contribute to WMD programs around the world has always been significant. The implementation of effective national STC legal regimes has never been perfect or universal. But where implemented effectively, strategic trade controls materially contribute to international aims of keeping WMD sensitive goods and technologies out of the hands of dangerous actors.

At the national level, STCs typically take the form of a licensing regime applicable to the export, re-export, transit, and transshipment of WMD relevant single and dual use items. Common elements of the licensing system include primary legal establishment in legislation or regulations, legal authorities for an administering agency, implementing regulations including a national control list as well as a restricted end users list, and penalties for violation of the licensing regime. Typically there is one authorized licensing agency, which works closely with an interagency coordination system, including the customs agency which acts as the front line of the licensing system.

When the system works effectively, and on the basis of a sound legal footing, it will assist manufacturers, exporters, shippers, brokers, importers and all other parties within the state engaged in international trade to: 1) identify listed items subject to the licensing regime; 2) correctly and comprehensively produce license applications for listed items in export, re-export, transit, or transshipment; and 3) allow the licensing authority to effectively apply the legal restrictions which have been placed on these transactions under the relevant legislation and regulations.

In this chapter I will first review the international legal basis for STCs, which is to be found in the three primary international treaties applying to nuclear, chemical, and biological weapons proliferation, as well as in U.N. Security Council Resolution 1540. In doing so I will also briefly review the Nuclear Suppliers Group, the Australia Group, and the Missile Technology Control Regime, which operate as fora for coordination of national technology control lists and trade control policies. I will then focus on the implementation of STC legal systems at the national level by identifying and discussing common elements of effective STC

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systems. Finally, I will review some common challenges to implementing national STC systems, and discuss current developments relative to national and international STC regulation.

I. International Legal Basis and Coordination

The international legal obligation and mandate to apply and maintain an effective STC system at the national level derives principally from the three cornerstone treaties addressing WMD proliferation – the 1968 Nuclear Nonproliferation Treaty (NPT), the 1972 Biological Weapons Convention (BWC), and the 1993 Chemical Weapons Convention (CWC). This mandate was later expanded by The U.N. Security Council in 2004 through its Resolution 1540.[2]

In each of the three treaty regimes, the obligation to maintain a STC system plays the same role of prescribing supply side controls over both single and dual use materials that could be used in a nuclear, chemical, or biological weapons program. Put more plainly, the purpose of STCs is to regulate and restrict export from supplier states of these sensitive technologies, as well as their transit, transshipment, and re-export through other countries, in order to prevent the acquisition of these materials by end users of WMD proliferation concern. Along with safeguards regimes administered in the nuclear and chemical area on related facilities, STCs constitute an important element of each treaty regime's provisions purposed in implementing their essential nonproliferation obligations.[3]

In the nuclear weapons area, the central STC obligation is to be found in NPT Article III(2):

> Each State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear-weapon State for

[2] See Daniel H. Joyner, INTERNATIONAL LAW AND THE PROLIFERATION OF WEAPONS OF MASS DESTRUCTION, Chapter 1 (2009).

[3] On STCs generally see Daniel H. Joyner, NON-PROLIFERATION EXPORT CONTROLS: ORIGINS, CHALLENGES AND PROPOSALS FOR STRENGTHENING (Ashgate, 2006); Thilo Marauhn, 'Global Governance of Dual-Use Trade: The Contribution of International Law', in O. Meier, ed., TECHNOLOGY TRANSFERS AND NON-PROLIFERATION: BETWEEN CONTROL AND COOPERATION (London: Routledge, 2014); Ian Anthony, 'The Evolution of Dual-Use Technology Controls: A Historical Perspective', in O. Meier, ed., TECHNOLOGY TRANSFERS AND NON-PROLIFERATION: BETWEEN CONTROL AND COOPERATION (London: Routledge, 2014); Oliver Meier and Iris Hunger, Between Control and Cooperation: DUAL-USE, TECHNOLOGY TRANSFERS AND THE NON-PROLIFERATION OF WEAPONS OF MASS DESTRUCTION (Osnabrück: Deutsche Stiftung Friedensforschung, 2014); Michael D. Beck, Richard T. Cupitt, Seema Galhaut, and Scott A. Jones, TO SUPPLY OR TO DENY: COMPARING NONPROLIFERATION EXPORT CONTROLS IN FIVE KEY COUNTRIES (Amsterdam: Kluwer Law International, 2006); Douglas M. Stinnett, Bryan R. Early, Cale Horne, and Johannes Karreth, "Complying by Denying: Explaining Why States Develop Nonproliferation Export Controls," *International Studies Perspectives*, Vol. 13, Issue 3 (August 2011), pp. 308-326; Andrew Latham and Brian Bow, "Multilateral Export Control Regimes: Bridging the North-South Divide," *Canadian Institute of International Affairs International Journal*, Vol. 53, No. 3 (Summer 1998), pp. 465- 486; Daniel H. Joyner, "Restructuring the Multilateral Export Control Regime System," *Journal of Conflict and Security Law*, Vol. 9, No. 2 (2004), pp. 181–211; Michael Lipson, "The Reincarnation of COCOM: Explaining Post Cold-War Export Controls," *The Nonproliferation Review*, Vol. 6 No. 2 (Winter 1999); Richard T. Cupitt and Suzette R. Grillot, "COCOM is Dead, Long Live COCOM: Persistence and Change in Multilateral Security Institutions," *British Journal of Political Science*, Vol. 27 (1997).

peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this article.

This legal obligation has been the focus of the work of the Nuclear Suppliers Group, a group of states currently numbering 48 which began meeting in 1975 in order to flesh out, as among themselves, agreed technical details and guidelines for implementing their NPT Article III(2) obligations. The NSG's agreed guidelines have never been adopted on a legally binding basis as among its adherents, nevertheless the members of the group consider them to be important politically binding commitments. The NSG has adopted two control lists, sometimes referred to as "trigger lists," which include both single and dual use items considered to be proliferation sensitive due to their potential use in a nuclear weapons program. The NSG has also adopted an evolving set of guidelines relating to trade in items on the trigger lists. Through its control lists and agreed guidelines, the NSG provides detailed and coordinated content for its members' laws and policies for regulating nuclear technology trade from and through their territories. It also serves as a communication hub for reporting national level license denials.[4]

In the chemical and biological weapons areas, the international legal basis for STCs is to be found in BWC Article III, and in the CWC Verification Annex Parts VI, VII, and VIII respectively.[5] BWC Article III provides that

> Each State Party to this Convention undertakes not to transfer to any recipient whatsoever, directly or indirectly, and not in any way to assist, encourage, or induce any State, group of States or international organizations to manufacture or otherwise acquire any of the agents, toxins, weapons, equipment or means of delivery specified in article I of the Convention.

The Verification Annex of the CWC stipulates states parties' obligations regarding restricting international trade in chemicals appearing on CWC Schedules 1, 2, and 3. These schedules list toxic chemicals and precursors in descending order of their direct applicability to the manufacture of chemical weapons. The restrictions on trade in scheduled chemicals are detailed and differ in Parts VI, VII and VIII of the Verification Annex (corresponding to Schedules 1, 2, and 3 respectively), but they operate according to similar principles of restricting trade when an unacceptable risk is present that the scheduled chemical will be used in the manufacture or use of chemical weapons.

With regard to international coordination of STCs in the biological and chemical weapons areas, the primary facility for this effort is the Australia Group (AG). Founded in 1985 at the initiative of the government of Australia, the AG's purpose and organization is very much the same as that of the NSG in the nuclear area, i.e. it constitutes a forum for coordination among its members, currently numbering 43 states, on items to be included on single and dual use chemical and biological materials trade control lists, for harmonization of national laws and licensing procedures on trade authorization for these listed materials through the agreement of common guidelines, and for communication of license denials. Also like the NSG, the AG's

[4] See Daniel H. Joyner, *The Nuclear Suppliers Group: History and Functioning*, INTERNATIONAL TRADE LAW & REGULATION 11(2), 33-42 (Sweet & Maxwell 2005).

[5] See Daniel H. Joyner, INTERNATIONAL LAW AND THE PROLIFERATION OF WEAPONS OF MASS DESTRUCTION, Chapter 2 (2009).

foundation is non-legally-binding, but is considered by its members to constitute important political commitments.[6]

Rounding out the international coordination fora focused on trade in WMD related items and their delivery systems is the Missile Technology Control Regime (MTCR). The MTCR was founded in 1987 by the G7 countries. While there is no multilateral treaty addressing the possession and proliferation of missile technologies, as among themselves the members of the MTCR, currently numbering 35 states, have agreed on a set of guidelines for approving trade in the missile-related items included on a similarly agreed trade control list.[7]

In 2004 the United Nations Security Council adopted Resolution 1540. As a decision of the Security Council, according to Article 25 of the United Nations Charter, Resolution 1540 is *prima facie* legally binding upon all United Nations members.[8] In pertinent part, the resolution requires that

> all States shall take and enforce effective measures to establish domestic controls to prevent the proliferation of nuclear, chemical, or biological weapons and their means of delivery, including by establishing appropriate controls over related materials and to this end shall . . . Establish, develop, review and maintain appropriate effective national export and trans-shipment controls over such items, including appropriate laws and regulations to control export, transit, trans-shipment and re-export and controls on providing funds and services related to such export and trans-shipment such as financing, and transporting that would contribute to proliferation, as well as establishing end-user controls; and establishing and enforcing appropriate criminal or civil penalties for violations of such export control laws and regulations;

The provisions of Resolution 1540 are an important source of additional scope and detail for international legal obligations regarding STCs. They make the obligation to maintain an effective STC program at the national level an international legal requirement for all members of the United Nations. They further clarify that such an STC framework should apply to a broad scope of transactions in WMD sensitive goods, including export, re-export, transit, and transshipment of such goods, as well as to related transactions such as financing, transportation, and brokerage. They further specify that STC systems should include end user focused controls in addition to controls based upon lists of goods (i.e. catch all controls).

It is worth noting that neither the international legal sources for STCs, nor the international coordinating bodies, provide a commonly agreed list of restricted end users for WMD sensitive items. The subject of restricted end users has always been too politically sensitive a topic, and one on which wide agreement among supplier states has been too difficult to procure, for inclusion as an element of either the cornerstone nonproliferation treaties or the STC coordinating bodies. Restricted end user lists have therefore always been maintained at the national instead of the international level.

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[6] See Jean Pascal Zanders, Melissa Hersh, Jacqueline Simon and Maria Wahlberg, "Chemical and Biological Weapon Developments and Arms Control," *SIPRI Yearbook 2001.*

[7] See Scott A. Jones, "Emptying the Haunted Air: Delivery Means and the Post-Modern MTCR," in Daniel Joyner, ed., *Non-proliferation Export Controls: Origins, Challenges, and Proposals for Strengthening* (London: Ashgate, 2006).

[8] See, however, Daniel H. Joyner, *Non-proliferation Law and the United Nations System: Resolution 1540 and the Limits of the Power of the Security Council*, 20 LEIDEN JOURNAL OF INTERNATIONAL LAW, No. 2 (Cambridge University Press, 2007).

II. Common Elements of Effective National STC Systems

Moving, then from the international level of prescription and coordination to the national level of implementation, some common elements of effective national STC systems can be identified. These include:

- A clear legal-regulatory foundation;
- The identification and authorization of a licensing agency or agencies;
- The establishment and maintenance of a system for interagency and technical review of license applications;
- List-based and non-list-based controls, including a restricted end user list and catch-all controls;
- A transparent process for license applications and review, including end user/end use verification;
- Clearly prescribed and consistently enforced civil and criminal penalties for violation; and
- Industry participation and government outreach.

Typically, these elements of an STC system are established first through foundational legislation, and are then given further specificity through implementing regulations adopted by the licensing agency.

The identification of a licensing agency differs across countries. Often it will be an agency that already focuses on international trade and commerce. It should be provided by the foundational legislation with ample authority and resources to take on the task of administering the licensing program.

In the implementing regulations adopted by the licensing agency, it should provide clarity regarding the scope of the licensing system, including by identifying the items, persons, and locations subject to the licensing requirement, in order to clarify who needs an STC license, for which kinds of trade transactions, involving what goods.

Circumstances will differ among states as to the scope and focus of their STC licensing system. A state which produces and exports a large and diverse volume of control-listed items will need to have a comprehensive system focused on all potential transactions in these goods including export, re-export, transit, and transshipment. By contrast, many states simply do not produce many control-listed items. However, they may, due to their geographical location or other circumstances, have the potential to be an attractive transit or transshipment hub for proliferators. Thus, for many, particularly developing states, it makes sense from a resource allocation perspective to focus the early development of an STC system on transit and transshipment transactions, and not on export and re-export transactions.

The national control list or lists are a central element of the licensing system. The national list should be a composite of the single and dual use control lists maintained by the international coordinating fora discussed earlier, i.e. the NSG, AG, and MTCR. For developing countries looking to establish a new STC program, the dual use control list maintained by the European Union, contained in EU Council Regulation No 428/2009 (as amended), has become the standard for adoption. The list is publicly available and contains a coherent and

comprehensive, and constantly updated, listing of dual use goods that should be regulated by an STC system.

The essential idea of the primary list-based licensing requirement of an STC system is that any export, re-export, transit, or transshipment from or through the national territory of the regulating state, involving an item appearing on the national control list, should require the persons engaged in that transaction to apply for and be granted an STC license by that state. This requirement should extend not just to the exporter of the item, but also to any intermediaries including shippers, freight forwarders, warehousers, and brokers. In practice, most countries that have an STC system do not require a license for transit and transshipment transactions through their territory if the shipment has already been granted an export or import license by either the exporting state or the importing state. But for states that are in particularly sensitive areas of the world, or who know that their territory has been used in the past for transit or transshipment of controlled items to unauthorized end users, scrutiny of such transactions should still be required.

The licensing agency's implementing regulations should spell out in transparent detail the circumstances in which a license application is required, and should also detail the procedures and documentary requirements for a license application. Timelines and the review process should be stipulated. The regulations should provide that license applications be received by the licensing agency, but should then be subject to an interagency review process coordinated by the licensing agency. This interagency review process should include technical specialists who can review the application and confirm its correct classification, specifications, and potential uses. It should also include intelligence agencies who can contribute information on the exporter as well as the importing state and the intended end user. It should also include foreign policy agencies who can advise on national policy with regard to the importing state and its regional context, including reporting on any international or national sanctions in place regarding the importing country or end user. Other agencies with specialized knowledge relevant to the application in question can also be consulted. On the basis of this interagency review, the licensing agency can then make an informed decision concerning the application.

Another central element of an STC licensing system is a restricted end user list that is compiled and maintained by the licensing agency, in consultation with intelligence and policy agencies. As noted previously, none of the international organizations or coordinating fora that address STCs maintain restricted end user lists. Thus, these lists must be compiled and maintained by each individual state. Although, in practice, many smaller or developing countries will rely on more developed countries with whom they have friendly relations to provide them with updated restricted end user lists based upon intelligence gathering by the developed state. Essentially, a restricted end user list identifies natural and legal persons that should not receive goods included in the control list, or any other goods that could allow them to contribute to WMD programs. Any STC licensing application should require the identification of the end user of the goods, as well as the inclusion of a statement by the end user identifying the end use to which the goods will be put. This information can then be run against the restricted end user list as part of the license review process. Sophisticated STC systems will further require end user verification even after a license has been granted and the goods have been delivered.

Restricted end user lists are also important for non-list-based controls. These controls are built into the STC licensing system and are usually based on a "catch all" provision in the implementing regulations. Catch all provisions of STC regulations are purposed in placing covered persons under an obligation of due diligence, even for trade transactions that may not involve an item on the STC control list. Catch all provisions typically provide for legal liability for exporters or other persons involved in an international trade transaction if, notwithstanding the inclusion or non-inclusion of the traded good on the control list, that person knew or reasonably should have known that the good was destined for a restricted end user or an end use that will contribute to a WMD program. For example, Section 744.6 of the United States' Export Administration Regulations provides that:

(a)(1)(i) No U.S. person . . .may, without a license from BIS, export, reexport, or transfer to or in any country any item where the person knows that such items:

(A) Will be used in the design, development, production, or use of nuclear explosive devices in or by a country listed in Country Group D:2. . .

(B) Will be used in the design, development, production, or use of missiles in or by a country listed in Country Group D:4. . .; or

(C) Will be used in the design, development, production, stockpiling, or use of chemical or biological weapons in or by a country listed in Country Group D:3.

(ii) No U.S. person shall, without a license from BIS, knowingly support an export, reexport, or transfer that does not have a license as required by this section. Support means any action, including financing, transportation, and freight forwarding, by which a person facilitates an export, reexport, or transfer without being the actual exporter or reexporter.

The regulations continue in the same section to forbid any U.S. person from "perform[ing] any contract, service, or employment that the U.S. person knows will directly assist" in the development, production or use of the aforementioned items in the specified nations of concern. They further define the term "know" and its derivations in the context of the regulation as "not only positive knowledge that [a] circumstance exists or is substantially certain to occur, but also an awareness of a high probability of its existence or future occurrence. Such awareness is inferred from evidence of the conscious disregard of facts known to a person and is also inferred from a person's willful avoidance of facts."[9]

Catch all controls can be an important first establishment in a developing country's STC system. This is because the only new legal infrastructure needed to implement catch all controls is legal authority to operate them, and a restricted end user list. A technology control list, and commodity classification implementation based thereon, which in practice can be quite difficult to administer, is not required. Particularly if the developing country does not itself produce many WMD sensitive items for export, and if the essential STC concern the country has is in regard to its potential as a transit or transshipment point for proliferators, the establishment of an exclusively catch all control-based system, at least as a starting point for STCs, can make a significant contribution to national and international WMD nonproliferation efforts. This is particularly the case if the developing country has among states friendly to it a more developed country that is willing to share intelligence information on potential proliferation-related transactions that will be passing through its territory. With the catch all control authority in place, the shipment can be stopped and those involved in it can be held liable.

This was the case, for example, when in October 2003 the German owned merchant ship *BBC China* was interdicted by Italian authorities in the Italian port of Taranto, acting upon intelligence information provided by the U.S. and U.K. governments. Upon inspection of the vessel's cargo hold it was discovered that the ship was carrying uranium centrifuge components to Libya for its clandestine nuclear weapons program.[10] Similarly, in July of 2013 the North Korean vessel *Chong Chon Gang* passed through the Panama Canal *en route* from Cuba west through the canal. Acting on intelligence information received from the United States, Panamanian authorities ordered the ship to stop and submit to a search. Upon inspection of the ship's cargo hold, 250,000 bags of brown sugar were discovered at the top of the hold. However, once these were removed, 25 hidden containers were discovered in which were two

[9] 15 CFR 772.1. See Daniel H. Joyner, *The Enhanced Proliferation Control Initiative: National Security Necessity or Unconstitutionally Vague?*, 32 GEORGIA JOURNAL OF INTERNATIONAL & COMPARATIVE LAW 107 (2004).
[10] See G. Corera, "Taming a Tyrant," *The Sunday Times*, June 25, 2006.

anti-aircraft missile batteries, nine missiles in parts and spares, two Mig-21 fighter jets, 15 Mig motors, military vehicles, assorted rocket launchers, artillery ammunition for anti-tank guns and howitzer artillery, as well as generators, batteries and night vision equipment, small arms and ammunition. It was later determined by a U.N. panel of experts that this was a clandestine weapons shipment bound for North Korea, in violation of U.N. Security Council sanctions.[11]

III. Challenges for and Trends in STC regulation

Efforts to promote the adoption and maintenance of effective STC systems by states are challenged by *inter alia* insufficient political prioritization and resource allocation within states, the difficulty of reconciling an STC system's restrictive effects on trade with currents and structures of trade promotion, dynamic technology development, and the evolution of proliferation trends.

Although national level STC systems are legally required by international treaties and U.N. Security Council resolutions, adopting and maintaining an effective STC system often is not seen by states as a political priority. This is especially the case if the state in question does not produce for export many items appearing on STC control lists. Developing countries in particular find it difficult to prioritize the allocation of scarce legal and administrative resources to a regulatory effort, the economic or political benefits of which are not readily apparent. It is typically not the case that officials of such countries do not care about the macro issues of WMD proliferation that STCs are purposed in preventing, or that they are not willing to comply with their international legal obligations. Rather, it is simply a matter of not being able to achieve political prioritization of this effort at a high enough level of government officialdom, in the face of more obviously pressing concerns of state. Powerful states like the U.S. and the states of the European Union have programs of international outreach and financial support for allied countries to develop effective STC programs, and these programs have achieved some success. Nevertheless, for many developing states in particular there is simply not the perceived immediacy of need, or strength of self-interest present, to justify political prioritization and resource allocation to an STC program.

Administration of an STC system can also run into pushback from the business community within a state if it is perceived as a regulatory device that unduly impedes international trade and foreign investment. This is often a perception in developing countries where there are strong incentives to regulatorily facilitate international trade and inbound foreign investment. Many developing states have, for example, sought to attract foreign investment by establishing free trade zones (FTZs). The hallmarks of these zones typically include reduction or elimination of tariffs and other customs duties on imports, exports, transits, and transshipments of goods. The application of STC licensing requirements to goods flowing into, out of, and through FTZs can be particularly unwelcome by businesses operating in the FTZs, and to government officials eager to increase investment and tax revenues produced by the FTZs. However, FTZs are also common targets for proliferators precisely because of their regulation-

[11] See Rick Gladstone & David E. Sanger, "Panama Seized Korean Ship and Sugar Coated Arms Parts," New York Times, July 16, 2013.

lite trade environment, and are therefore particularly needful of STC regulation.[12] This tension between trade-promotion on the one hand, and counter-proliferation regulation of trade through STCs on the other, can be particularly difficult for developing states to navigate.

Even when a state has in place an STC system, that system will continuously be challenged by the dynamic nature of the development of technologies relevant to WMD proliferation, and by changing trends in proliferation activities. Emerging technologies relative to WMD proliferation including remotely piloted aerial vehicles, 3D printing technology, artificial intelligence, robotics, means for genetic manipulation of biological materials, and others, mean that the control lists – i.e. the scope of technologies regulated by an STC system – are in continuous need of adaptation and revision. Understanding both the actual and potential weapons applications of these dynamic technologies – which are also of course among the most valuable technologies in commercial international trade – and adapting STCs to adequately regulate them, while at the same time allowing for their international trade for peaceful uses, is a particular current challenge to STC system administrators.

The mechanics of proliferation are of course also dynamic. STC systems have traditionally focused on listed goods flowing from developed economies where they originated, to end users in other developed economies or in developing economies. The goods themselves flowed in international trade. While this continues to be one area of focus for STC systems, increasingly of concern is trade in intangible technologies (data and other media of intellectual property) and in the means to produce WMD sensitive goods outside of traditional supplier states and supply chains. International investment and the development of manufacturing and other production capability around the world has meant that actual production of listed items can take place in many more locations around the world than was traditionally the case. And particularly with the recent advent of 3D printing technologies, the task of monitoring and regulating trade flows in both finished listed goods, as well as in the technologies necessary to produce those finished listed goods, is growing more and more challenging.

One proposed trend in STC administration that is purposed in meeting some of these challenges, is of particular note. Again, the traditional components of an STC system have typically included a comprehensive control list, a restricted end user list, and a licensing regime that involves the classification of a commodity in trade and the identification of its status as controlled. If the item is controlled, a license must be applied for and secured in order for the item to export from, import to, or transit through the regulating country. From a technical perspective, the commodity classification process and identification of controlled status is complex and resource intensive for STC administrators. In large, developed states, this can be a well-functioning part of a comprehensive STC system.

However, as previously noted, for many particularly developing states that do not produce many listed items for export, maintaining a commodity classification system and applying the full control list to all aspects of trade through the country is daunting in terms of expertise and resource allocation. For such countries, whose territory and ports are particularly a target for transit or transshipment of proliferation sensitive items, a tailor-made STC system that focuses exclusively on transit and transshipment transactions, and that employs primarily a restricted-end-user and catch-all-control focus on transaction regulation, is worth consideration. This version of an STC system simply employs a restricted end user list for regular trade transactions. The STC administering agency, likely in cooperation with front line customs

[12] See Ethar Abdulhaq, "Toxic Weapons used in Aleppo Made by Jordan-Based Company: Monitor," *Zaman al-Wasl* (11/21/2016).

officials, simply compares the information presented on the item's importing documents, to the restricted end user list, in order to determine any potential matches. This function can be accomplished electronically with minimal investment and maintenance costs. Any matches between the import documents' information and the restricted end user list are flagged for closer scrutiny. Only then will technical expertise be required for commodity classification and list identification.

While less comprehensive than a full control-list-based system, for countries most concerned about transit and transshipment of controlled items passing through their territory to end users of concern, this stripped-down system can make a material contribution to catching such traffic. It is important for such a minimalist system to additionally include a catch all provision in its legal foundations, as discussed previously. This will allow the regulating state to coordinate with allied governments in information sharing, in order to detect clandestine movements of sensitive items through the regulating state's territory, and provide the legal authority to the regulating state to stop the shipment and penalize those involved with it. Such tailor made STC systems, it is proposed, can make the adoption and maintenance of an STC system more manageable, particularly for developing states that struggle to adopt full list-based systems.

Strategic trade controls are complex. They require a commitment of scarce governmental resources, and can be challenging for states to implement and maintain effectively. They can also be hard to sell to businesses engaged in international trade, who struggle to see their value and often see them as just more frustrating red tape to cut through. However, national STC systems and their international coordination are an important element in the international effort to prevent or at least slow the proliferation of weapons of mass destruction to actors of concern, including terrorist groups. They do this through identifying goods in international trade that can contribute to WMD development programs, identifying end users that should not have access to these goods, and then stopping the progress of those goods to those end users. Effectively, STC's increase the cost and difficulty to actors of concern of producing WMD through the use of goods acquired through international trade.