

Free Zones and Strategic Trade Controls

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Abstract

Free zones have been used in numerous WMD proliferation-related cases and present unique opportunities and incentives for proliferators. This article examines the ways in which free zones present a proliferation risk and recommends practical actions to strengthen strategic trade controls as a nonproliferation tool in the context of free zones. Existing international and regional legal frameworks, free zone incentives and vulnerabilities, and case studies are presented. The article concludes with recommendations in four specific areas: strengthening legal frameworks, empowering Customs authorities, training and awareness, and further research.

Keywords

Strategic trade controls, free zones, revised Kyoto Convention, nonproliferation, Customs, World Customs Organization

Introduction

Supply chain security plays an important role in nonproliferation of weapons of mass destruction (WMD) efforts. The rise in the global supply chain's complexity due to multiplication of actors, trade globalization, and technological advancement has opened trade routes to exploitation

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by those seeking to acquire strategic goods for WMD purposes. Free zones are one major area of vulnerability that merit greater attention in strategic trade literature.² While several reports have been issued on the relationship between free zones and activities such as money laundering, intellectual property rights violations, and illegal cigarette smuggling, this article opens analysis of free zone to the strategic trade realm specifically.³

Free zones have been used in numerous WMD proliferation-related cases and present unique opportunities and incentives for proliferators. This paper examines the ways in which free zones present a proliferation risk and recommends practical actions to strengthen strategic trade controls as a nonproliferation tool in the context of free zones.

The article is structured as follows. The first section examines existing international and regional laws that define and regulate these areas, in particular the revised Kyoto Convention (RKC), international export control regimes and other related organizations, as well as regional legal structures such as that of the European Union (EU). The second section explores vulnerabilities specific to free zones and presents past proliferation case studies. In conclusion, the paper offers concrete recommendations in four specific areas: strengthening legal frameworks, empowering Customs authorities, training and awareness, and further research.

International Legal Framework

Free trade zones are the most commonly referred to types of free zones. Free zones themselves are synonymous with special economic zones and are often used interchangeably in available sources. But free trade zones are also referred to with different terminologies depending on the country. The United States refers to them as foreign-trade zones while in other countries they are referred to as free ports or export processing zones. International law offers a working definition of free zones that helps clarify the varying nomenclature.

The International Convention on the Simplification and Harmonization of Customs Procedures, otherwise known as the Kyoto Convention, sets up the legal framework governing free zones.⁴ The convention was developed by the World Customs Organization (WCO) and entered into force in 1974 as the main trade facilitation Customs convention. It was revised and the new version adopted by the WCO Council in 1999. The convention's aim is to facilitate trade and maintain effective controls by harmonizing and simplifying Customs procedures and practices.⁵

This article refers to free zones and groups free trade zone as one type of free zone. This is because a) international law in the form of the Revised Kyoto Convention refers to free zones and b) some free zones have been created for activities other than trade, such as manufacturing.

This article uses the definition of strategic trade controls as can be found in Catherine B. Dill and Ian Stewart, "Defining Effective Strategic Trade Controls at the National Level," *Strategic Trade Review* Vol. 1, (Autumn 2015), p. 4.

⁴ Bernard M. Hockman, Philip English, and Aaditya Mattoo, "Development, Trade and the WTO: A Handbook," World Bank, June 12, 2002, http://documents.worldbank.org/curated/en/2002/06/5051874/development-trade-wto-handbook.

⁵ Revised Kyoto Convention, World Customs Organization, February 3, 2006.

The RKC consists of three parts: text, ten chapters of a general annex, and ten specific annexes. The text lays out definitions, scope, structure, management, organization, responsibilities of contracting parties, and final provisions. The general annex covers core Customs procedures and practices that aim to harmonize and simplify Customs procedures across countries' respective administrations. It also covers general principles, definitions, clearance and other Customs formalities, duties and taxes, security, Customs control, application of information technology, relationship between Customs and third parties, information supplied by Customs, and appeals in Customs matters. Importantly, as delineated in the text, the entire general annex is binding on contracting parties and no reservations are possible regarding their implementation.

The specific annexes of the RKC, however, are not binding. They consist of standards and recommended practices regarding other aspects of Customs procedures. Therefore, according to the general text, contracting parties can accept one or more of the specific annexes as well as submit reservations to recommended practices to the WCO.⁶ There is an obligation to review reservations periodically, and no reservations to standards are allowed. The areas covered by specific annexes are: arrival of goods in a Customs territory, importation, exportation, Customs warehouses and free zones, transit, processing, temporary admission, offenses, special procedures and origin. The part of the RKC dealing with free zones is in the specific annex and therefore not binding on contracting parties.

Free zones are dealt with in Chapter II of Specific Annex D. Here, they are defined as "a part of the territory of a Contracting Party where any goods introduced are generally regarded, insofar as import duties and taxes are concerned, as being outside the Customs territory." The standards and recommended practices supply the only existing hard law international legal framework for free zones. Importantly, the definition only regards goods as being outside of the Customs territory in relation to the traditional revenue collection role of Customs, but does not touch other important responsibilities of Customs such as inspections and seizures. Standard four of the Annex states: "Customs shall have the right to carry out checks at any time on the goods stored in a free zone." It is important to underscore this point, especially with regards to the actual obstacles faced by many Customs authorities regarding their access to free zones discussed later in this article.

Most of the standards and recommended practices in the Specific Annex set wide boundary conditions for states. For example, regarding the kinds of goods consumed within a free zone, the Annex states as a standard that: "National legislation shall enumerate the cases in which goods to be consumed inside the free zone may be admitted free of duties and taxes and shall lay down the requirements which must be met." The most important points, apart from Standard Four mentioned above, are in the form of recommended practices, and therefore at the bottom of the pyramid in terms of legal obligations on state signatories. Recommended Practice six, for example, importantly acknowledges that certain goods may not enter a free zone due to public security concerns.

Samson Bilangna, "The Revised Kyoto Convention," CAREC Customs Cooperation Committee Technical Assistance Inception Workshop, April 7-9, 2014, http://www.carecprogram.org/uploads/events/2014/CCC-TA-Workshop-AZB/Presentation-Materials/Day-2/009_112_209_The-Revised-Kyoto-Convention.pdf.

Revised Kyoto Convention, World Customs Organization, February 3, 2006.

⁸ Ibid.

It is unclear to what extent states implement the Revised Kyoto Convention after signing it, especially regarding the Specific Annex. Interestingly, the World Free Zones Organization, the only association of free zones on an international level, states in its 2015 "manifesto" that there is no clear definition of a free zone, either overlooking the Revised Kyoto Convention or perhaps pointing to its irrelevance. According to the WCO official website, there are currently 103 contracting parties. However, of these, based on states' notifications on Specific Annexes or *notes verbales* signaling accession, very few have expressed adherence to the Specific Annexes, and in particular Specific Annex D. There is also insufficient information in the public domain to understand to what extent contracting parties implement the Convention in general, and for the states that do follow Specific Annex D, specific implementation practices and measures are not identified.

The emphasis on the RKC stems from first, its role as the only source of international law regarding free zones, and second, due to its potentially significant role in addressing vulnerabilities germane to free zones that render them a weak point in strategic trade supply chains. Research beyond the starting point of the RKC regarding definitions and terminology yields as many different descriptions of zones as number of zones themselves. There are free ports, free trade zones, free economic zones, export processing zones, exclusive economic zones, enterprise zones, foreign trade zones, special economic zones, and many more. While there are differences between each kind of zone, these differences are accepted without a firm internationally accepted legal underpinning.

Given that free zones represent a proliferation risk in the context of strategic trade controls, subject-relevant international bodies could address free zones in their guidelines, associated best practices, or implementing guides. An analysis of such bodies demonstrates that only one organization, the Wassenaar Arrangement, does so.

The Proliferation Security Initiative, which commits participants to establish a coordinated and effective basis through which to impede and stop WMD-related trafficking, does not address free zones specifically in its guiding principles or other documents. Of the four major export control regimes, the Nuclear Suppliers Group (NSG), the Australia Group (AG), the Wassenaar Arrangement (WA), and the Missile Technology Control Regime (MTCR), only the WA addresses free zones in their best practice guidelines for transit and trans-shipment. The WA publishes many such guides, which constitute a soft law element of the international strategic trade control legal framework. The guide calls on WA Participating States to:

"Establish and apply a transparent legal and regulatory system that allows, where appropriate, the authority to control items in transit or trans-shipment, including the authority to, where necessary and appropriate, stop, inspect and seize a shipment,

^{9 &}quot;World Free Zones Organization: Manifesto," World Free Zone Organization, 2015, http://www.worldfzo.org/AnnualReports/World%20FZO_Manifesto_E2014.pdf.

[&]quot;Position as Regards Ratification and Accession," World Customs Organization, July 25, 2015, .

¹¹ The Proliferation Security Initiative, http://www.psi-online.info/>.

as well as legal grounds to dispose of a seized shipment when law enforcement activities are completed. This authority should extend fully to activities taking place in special Customs areas located within a sovereign state's territory, such as free-trade zones, foreign trade zones and export processing zones." ¹²

This is the only reference to free zones by an export control regime and indicates that Customs authorities should retain their political power to inspect and seize suspicious shipments. However, the guide is specific, as referenced in the text, to the forty-one Participating States of the WA.¹³ These states are assumed to have the strongest strategic trade control systems in place and present less vulnerabilities in their free zones than states outside the regime. Export control regimes are composed of the major worldwide suppliers of particular groups of dual-use goods, but major transit and trans-shipment countries are often not included. As the vulnerabilities of free zones apply mostly in these countries, there are weak incentives for them to follow and apply WA best practice guide recommendations, or to even know that the guide exists, unless they are targeted by WA outreach activities specifically on this subject.

What remains at the international legal level, having considered the Revised Kyoto Convention and international export control regimes, is that a universal legal obligation specific to free zones does not exist. Instead, the current framework is built on voluntary, generalized guidelines as well as bits and pieces of soft law guidelines from various organizations.

Regional Legal Frameworks

Even if several regional organizations in Europe, Africa, and America have adopted some form of Customs union, common ruling principles of free zones are almost non-existent in particular provisions concerning strategic trade control. ¹⁴ The European Union (EU), which constitutes one of the most integrated regional custom organizations, dedicates some provisions to free zones in its Community Customs Code. The Code stipulates the establishment of free zones, categories of goods admissible, and the nature of the operations. ¹⁵ None are related to the manufacturing or the transfer of the strategic items in a free zone. Therefore, it is up to EU Member States to adopt national provisions.

Nevertheless, export and transit of strategic items in the European Union are ruled by Dual-Use Council Regulation 428/2009 that, although not explicitly mentioning trans-shipment, indirectly gives EU Member States the possibility to control strategic item-related activities in

^{12 &}quot;Best Practice Guidelines for Transit or Trans-shipment," Wassenaar Arrangement, 2015, http://www.wassenaar.org/wp-content/uploads/2016/01/01Best-Practice-Guidelines-for-Transit-and-Trans-shipment.pdf.

¹³ This refers to the number of members as of October 2016.

For example, the European Union (EU), the Southern African Customs Union (SACU), or the North American Free Trade Agreement (NAFTA).

Articles 166 to 181 of the Council Regulation (EEC) No. 2913/92 establishing the Community Customs Code (*Official Journal* L 302, 19/10/1992 P. 0001) and articles 799–814 of the Commission Regulation (EEC) No. 2454/93 of 2 July 1993 laying down provisions for the implementation of Council Regulation (EEC) No. 2913/92 establishing the Community Customs Code (*Official Journal* L 335, 31/12/1993 P. 0001).

free zones. ¹⁶ Stemming from this, three situations can be considered. The first situation concerns the import of items from a third country into an EU free zone or the import of items from an EU free zone into the EU Customs territory. As long as an import of strategic items into the European Union is not submitted to nonproliferation control provisions, those operations are not controlled. At the national level, EU Member States have not adopted national legislation controlling such transactions.

The second situation concerns strategic items transiting through the European Union. This operation is targeted by the EU Dual-Use Regulation that defines transited items as "items which are not assigned a Customs-approved treatment or use other than the external transit procedure or which are merely placed in a free zone or free warehouse and where no record of them has to be kept in an approved stock record." The Regulation offers legal ground to allow EU Member States to prohibit, on a case-by-case basis, dual-use items passing through the European Union, including free zones, if authorities have reasonable grounds for suspecting from intelligence or other sources that the items are or may be intended in their entirety or in part for proliferation of WMD or of their means of delivery in the end-user country. This provision has been used occasionally by Member States, including for items transiting through EU free zones.

The third case concerns exporting dual-use items to a free zone established in a country outside of the EU. The Dual-Use Regulation does not contain dedicated provisions ruling such exports or guidelines delineating principles to be considered by Member State authorities. A prohibition to use European Union General Export Authorizations (EUGEA) exists only if the items are exported to a Customs free zone or free warehouse that is located in a destination covered by the authorization. Therefore, EU Member States are free to authorize or not export to free zones as long as they respect general export conditions and criteria defined by the Regulation. Consequently, the EU free zone export policy consists of varying situations whereby some Member States will deliver the authorizations (including global authorizations) while others will prohibit such exports.

Similarly to international law, the European Union has not adopted a clear legal obligation ruling strategic trade specifically in free zones. The result is a kaleidoscope of situations that cannot pave the way for a potential international instrument. Therefore, it is necessary to identify common existing characteristics of free zones that allow for the framing of proposals ruling their activities.

Free Zones: Growth and Incentives

What characterizes all free zones, beyond the baseline definition of the revised Kyoto Convention, are the incentives they provide economic operators. The exact number of free zones worldwide is unknown. One estimate from a Financial Action Task Force (FATF) report from 2010 puts the

¹⁶ Council Regulation (EC) No. 428/2009 of 5 May 2009 Setting up a Community Regime for the Control of Exports, Transfer, Brokering and Transit of Dual-use Items, Official Journal of the European Union (L 134/1) of May 29, 2009.

¹⁷ Ibid.

¹⁸ Ibid.

number of free zones at 3,000 in 135 countries worldwide.¹⁹ The latest figure, from the World Free Zones Organization in 2015, is 3,500, with around 70 million employees.²⁰ The growth in free zones has been exponential given that in 1975 there were a mere seventy-nine such zones.²¹ This number is certainly higher presently than in 2015 and will undoubtedly increase further due to the significant role of free zones in global economic activity, especially in developing countries.

The baseline incentive for countries to establish and use free zones is the potential boost to economic development. This can take place in numerous ways, giving rise to the multiplicity of different kinds of zones and accompanying nomenclature. Free zones aim to facilitate business activities, boost foreign investment, and spur technological advancement and transfer. Some zones, such as export processing zones, specialize in manufacturing for exports that offer firms free trade conditions and a liberal regulatory environment.²² All free zones try to attract economic activity by offering less regulation and governmental "red tape."

The potential gains from free zones can be attractive for developing countries, but the gains from free zones are not absolute.²³ Free zones can help achieve economic goals if they are well-managed, and the outcome depends strongly on the country and its circumstances. For example, when Jordan created the Aqaba Special Economic Zone in 2001, it literally created a separate Customs agency for the zone that was disconnected from the central government.²⁴ This model had to be revised because, due to its extraterritoriality, the zone remained isolated. Due to Aqaba's ineligibility to become a WCO member, businesses were dis-incentivized as they could not qualify as Authorized Economic Operators.²⁵

Regardless of the exact model or level of deregulation, free zones offer an attractive option for governments and economic operators. Yet the same characteristics that make free zones attractive to legitimate business also can attract abuse by illicit actors. The lack of oversight in these zones can be exploited by criminal elements for the purposes of illicit trade. The

Financial Action Task Force, "Money Laundering Vulnerabilities of Free Trade Zones," March 2010, http://www.fatf-gafi.org/media/fatf/documents/reports/ML%20vulnerabilities%20of%20Free%20Trade%20Zones.pdf.

^{20 &}quot;World Free Zones Organization: Manifesto," World Free Zone Organization, 2015, http://www.worldfzo.org/AnnualReports/World%20FZO_Manifesto_E2014.pdf.

^{21 &}quot;Controlling the Zone: Balancing Facilitation and Control to Combat Illicit Trade in the World's Free Zones," International Chamber of Commerce, May 2013, http://www.ip-watch.org/weblog/wp-content/uploads/2013/05/FTZ-report.pdf.

Madani Dorsati, "A Review of the Role and Impact of Export Processing Zones," World Bank, August 1999, http://www.worldfzo.org/AnnualReports/World%20FZO_Manifesto_E2014.pdf>.

²³ Ibid. Dorsati looks at real economic gains from a variety of different perspectives and discusses recommendations.

^{24 &}quot;Controlling the Zone: Balancing Facilitation and Control to Combat Illicit Trade in the World's Free Zones," International Chamber of Commerce, May 2013, http://www.ip-watch.org/weblog/wp-content/uploads/2013/05/FTZ-report.pdf.

For more on AEO see Mariya Polner, "Compendium of Authorized Economic Operator Programs," World Trade Organization, July 2010, http://www.wcoomd.org/en/topics/research/activities-and-programmes/~/media/43AC3326904F4887925CBB339C135BFE.ashx.

following section details some of the vulnerabilities of free zones, using several case studies to demonstrate the risk of these zones to global nonproliferation efforts.

Vulnerabilities

In order to understand the role of free zones in the illicit trade of dual-use materials and equipment, it is necessary to go into what has been described, even by some Customs officers, as a "black hole" or "gray zone." The relative passiveness to concretely tackle the risks and vulnerabilities posed by free zones, especially in the context of security concerns such as illicit trade of dual-use strategic goods, is probably due to the fear that exposing vulnerabilities will lead inevitably to more regulation, and that the regulation-free reputation of free zones will be slowly eaten away by the imposition of new controls. Yet just as in other fields, and strategic trade controls are an ideal example, economic incentives and benefits must be responsibly balanced against security priorities.

The following vulnerabilities do not apply to all free zones. There are many free zones where Customs exercise the breadth of their responsibilities, where oversight is strong, and where applicable laws are enforced in full force. The vulnerabilities noted in this section do apply however to many free zones, especially in developing countries, that have been involved in cases of illegal activities and therefore do present a security risk due to the interconnectedness of global trade. In addition, countries without a strategic trade control system or with a very weak one, tending again to be developing countries, will be most susceptible to the vulnerabilities noted here. Because proliferators exploit weak links, closing the gaps where supply chains are vulnerable merits international attention, resources, and action.

Interviews conducted with Customs officials, as well as other open sources, indicate that while according to the Revised Kyoto Convention they have the right to perform all Customs duties except for revenue collection, in reality they are not often given the financial, intelligence or enforcement powers to do so. A report from the International Chamber of Commerce notes that taking away the revenue collection role of Customs leads in practice "to a further erosion—real and perceived—of its non-tariff activities." This is because even if the government where a free zone is located has authority over the zone, the exemption from duties and taxes means that the scope of Customs to inspect cargo is limited. In addition, an incentive exists for Customs not to inspect cargo due to the economic incentives the zone brings to the state.

Additionally, risk assessment and targeting of Customs in these zones may be weaker due to less available information through documentation. The lack of consolidated risk-assessment, streamlined with non-free zone trade data, can further lead to lack of Customs inspections

This is also evidenced by United Nations Security Council Resolution 1540 Committee reports and matrices delineating the strategic trade control measures for legislation and enforcement countries have in place. See United Nations Security Council 1540, S/RES/1540, New York, April 2004 and "The 1540 Matrix," 1540 Committee, UN Security Council, New York, http://www.un.org/en/sc/1540/national-implementation/matrix.shtml.

^{27 &}quot;Controlling the Zone: Balancing Facilitation and Control to Combat Illicit Trade in the World's Free Zones," International Chamber of Commerce, May 2013, http://www.ip-watch.org/weblog/wp-content/uploads/2013/05/FTZ-report.pdf.

and seizures due to lack of targeting of suspicious cargo in these zones. Where document management does exist, in some zones the zone authority uses a different system than the Customs authority, which can further hurt risk assessment.²⁸

Illicit actors can forge documents and use free zones to repackage or relabel goods, or manufacture and assemble new goods in the zones. The laws applicable to free zones and their enforcement can also be outdated given the rapid increase in the number of zones worldwide.²⁹ In some cases, the criteria that economic operators have to meet in order to conduct activity in the zone are vague. For example, in some zones ownership information is not even necessary to set up activity, or only minimal information is required. This makes it easy to set up shell companies or mask the true company owners. Companies on entity lists or subject to sanctions may therefore exploit such weak requirements.

The decreased power of Customs to act, coupled with weak or outdated regulatory frameworks, information deficits, and weak transparency, lead to an overall lack of oversight in many free zones that can be exploited by proliferators. The highest risks are transit and trans-shipment because it is easier for proliferators to disguise the final destination of goods.³⁰ This masking can be done by switching bills of lading once goods arrive in the free zone, switching containers and their contents, or simply by shipping goods to a different destination than the stated one. Free zones could also potentially be used as distribution points, or even an area to import unfinished goods and then "further manufacture" them. While for most sensitive dual-use goods complete manufacture of goods in a free zone would not be feasible, the potential exists for certain goods to be wholly manufactured and then exported from them.

Cases

Most case studies concerning illegal activity in free zones have concentrated on illegal cigarettes, intellectual property violations, and money-laundering/anti-terrorism. The tobacco industry's ardent focus on free zones stems from the significant revenue loss—estimated at more than 11 billion euro caused by illegal cigarette trafficking.³¹ The vast resources available to tobacco companies allows them to devote entire research teams, as well as lobbyists, consultants, and politicians to promote awareness, reform, and even training. For example, in 2014 the World Customs Organization undertook Operation Gryphon, the first global Customs operation focused on the illicit tobacco trade. The six-month operation involved 93 Customs authorities and resulted in a large number of seizures, arrests, and investigations.³²

Based on a questionnaire regarding free zones. See Financial Action Task Force, "Money Laundering Vulnerabilities of Free Trade Zones," March 2010, http://www.fatf-gafi.org/media/fatf/documents/reports/ML%20vulnerabilities%20of%20Free%20Trade%20Zones.pdf.

²⁹ Ibid

³⁰ Yuan, Zhigang, *New Strategic Research on China (Shanghai) Pilot Free Trade Zone*, (Hackensack: World Century Publishing Corporation, 2013).

^{31 &}quot;Project Sun: A Study of the Illicit Cigarette Market," KPMG, June 8, 2016, https://home.kpmg.com/uk/en/home/insights/2015/05/project-sun-a-study-of-the-illicit-cigarette-market.html.

^{32 &}quot;WCO Announces the Results of its First Global Operation Against Illicit Trade in Tobacco," World Customs Organization, October 13, 2014, http://www.wcoomd.org/en/media/newsroom/2014/october/wco-announces-the-results-of-its-first-global-operation-against-illicit-trade-in-tobacco.aspx.

While the focus on the particular vulnerabilities of free zones and their contribution to the illicit tobacco trade may have instigated attention to other illicit activities, the nonproliferation community has not focused on the use of free zones in proliferation cases thus far. Known cases are few, but deeper analysis in terms of why or how free zones were used in the cases is nonexistent and warrants further future research.

Free zones are used in the proliferation context mostly as trans-shipment points. In the many books and articles that are available regarding the Khan network, all note that free trade zones in Dubai were critical in allowing nuclear technology to reach Iran, DPRK, Libya, and other states.³³ While the Khan case may be the most famous, a Wisconsin Project timeline noting "UAE Trans-shipment Milestones" lists at least three dozen cases implicating free zones in the UAE with proliferation cases.³⁴ Documented cases begin in the 1980s, and increase almost proportionally to the growth of number of zones and expansion in terms of incentives offered by the zones. Some examples include German uranium enrichment components shipped illegally to Pakistan; mustard gas and nerve agent precursors shipped from India to Iran; attempted export of a high-speed oscilloscope from the Netherlands to Pakistan; export of maraging steel from Belgium to Iraq; export of heavy water from Germany to India, all of which involve UAE free zones as trans-shipment points. These were followed by several unveiled cases of Dubai free zones being used by the Khan network.

Until the late 1990s, almost all cases involve India, Pakistan, Iran, and Iraq as end-users, with most goods coming from Europe and the United States. In the 2000s, new end-users begin to appear such as Jordan, Syria, Libya, and DPRK. In the 2000s, China and Turkey also appear as supplier countries. The UAE, while having some of the most important free zones in the world, is only used here to demonstrate the nature of some public proliferation cases, and has in fact begun to tighten oversight over their free zones.³⁵ Other free zones commonly used are located in China, Singapore, Malta, and many others.

Caution should again be taken in considering these countries—just because proliferation-related cases have been noted there does not mean that they are necessarily better or worse than countries that have not been publicly noted. As with most research on strategic trade prosecutions, open source evidence of crimes may indicate stronger strategic trade control implementation in terms of enforcement, while countries without any cases does not necessarily indicate a lack of criminal activity. The information regarding which country a free zone is located in is important only insofar as the legal and political actions that country has taken to prevent, or punish, free zones being used for proliferation purposes.

A couple of more recent cases can help shed light on the way in which free zones are used in the modern proliferation context. Again, further research is necessary to establish the strategic intentions and role free zones played in each case, as well as a greater understanding of how

Jack Boureston and James A. Russell, "Illicit Nuclear Procurement Networks and Nuclear Proliferation: Challenges Intelligence, Detection, and Interdiction," *STAIR* 4:2 (2009): 24-50.

^{34 &}quot;United Arab Emirates Trans-shipment Milestones 1971-2009," Wisconsin Project, *The Risk Report* 15:4 (July-August 2009).

Aaron Dunne, "Strategic Trade Controls in the United Arab Emirates," EU Non-proliferation Consortium, *Non-proliferation Papers* 12 (March 2012), 1-18.

such illegal activity could take place in the free zones involved. The following are cases from open source documentation, mostly U.S court documents. It is certain that more cases exist that are not yet available in open source. While more cases exist, the following have been chosen because of the relative comprehensiveness of open source information related to them as well as the circumstances involved which exemplify many proliferation trends inherent in modern criminal practice.

The first case involves two individuals, Jirair Avanessian, owner of the company XVAC, and Farhoud Masoumian, who in 2009 were charged with multiple violations related to a conspiracy to violate the U.S International Emergency Economic Powers Act (IEEPA) and the Iranian trade embargo, including smuggling, money laundering, and other crimes. A third individual involved in the conspiracy, Amirhossein Sairafi, was arrested in Germany. The three men, over two years, arranged the export of controlled vacuum pumps and related equipment to Iran through a UAE free trade zone on seven separate occasions. After receiving orders for the goods from Sairafi, Avanessian would procure the goods and ship them to the UAE, falsely declaring the UAE as the end-destination. Sairafi would then send the goods from the UAE to Iran. In order to avoid detection, Avanessian declared the value of the goods to be under 2,500 dollars in order not to have to file an export declaration as required by U.S law. In addition, the men re-labeled the contents as "spare parts" to further decrease the chances of inspection from Customs.

The second case involves a Chinese national, Sihai Cheng, who committed export violations and smuggled goods from the United States to Iran. Cheng conspired with an Iranian national, Seyed Abolfazl Shahab Jamili to illegally export hundreds of controlled pressure transducers to Iran.³⁹ MKS Instruments, a U.S company, manufactured the pressure transducers. Through each operation, the Shanghai free trade zone was used. Cheng would export them to the zone using fraudulent export licenses. He would then remove the serial numbers of the pressure transducers once they arrived in China. The goods were then shipped to Iran.⁴⁰

These two cases illustrate the vulnerabilities of free zones as well as the methods used by proliferation networks to trans-ship their goods. While further research must be undertaken to understand the reasons for using the zones, and the specific reasons the activities went undetected or were not followed up, it is important to begin pinpointing recommendations and

^{36 &}quot;Press Release: Glendale Resident and Two Iranian Men Charged in Scheme to Illegally Export Technology to Iran without a License," Iran Watch, Wisconsin Project, January 13, 2010, http://www.iranwatch.org/library/government/united-states/executive-branch/department-justice/press-release-glendale-resident-and-two-iranian-men-charged-scheme-illegally>.

³⁷ Certain vacuum pumps and related equipment are controlled because they can be used in uranium enrichment.

[&]quot;Summary of Major U.S. Export Enforcement, Economic Espionage, Trade Secret and Embargo-related Criminal Cases," United States Department of Justice, January 2015, https://www.justice.gov/sites/default/files/nsd/pages/attachments/2015/01/23/export-case-list-201501.pdf.

Pressure transducers can be used in gas centrifuges to enrich uranium and produce weapons-grade uranium and are therefore subject to strict export controls.

⁴⁰ Ian J. Stewart, Andrea Stricker, and David Albright, "Chinese Citizen's Involvement in the Supply of MKS Pressure Transducers to Iran: Preventing a Reoccurrence," Institute for Science and International Security, Project Alpha, King's College, April 29, 2014, http://isis-online.org/uploads/isis-reports/documents/MKS_China_30Apr2014-final.pdf.

actions that can be used to close the opportunities free zones present to proliferation network. Given the very real threat posed by WMD, especially by non-state actors, the international community has an obligation to act before a significant incident takes place.

Conclusions and Recommendations

Governments and international organizations have poured resources into outreach and capacity-building over many years to create, update and strengthen strategic trade control systems worldwide. These activities have focused on legal frameworks, enforcement, outreach to exporters, and other measures to secure ports or combat the transfer of intangibles technologies, for example. However, the challenge to nonproliferation capacity-building remains, in large part, staying a step, or several steps, ahead of proliferators. Capacity-building efforts must envision and take specific actions to address how proliferators act, which vulnerabilities they choose to take advantage of, and how they think out-of-the box to minimize their risks of interception. Due to the very nature of free zones as areas with less regulation, less oversight, and weaker power of enforcement authorities, they have often been used in proliferation cases. There are relatively simple, clear and potentially effective measures that could work towards securing this supply chain vulnerability and which merit greater international attention and action.

The recommendations suggested in this article focus on four areas: strengthening legal frameworks, empowering Customs authorities, training and awareness, and further research.

Legal Framework

Better defining free zones, and types of free zones, as well as delineating general norms through internationally binding legislation is the first step in countering illegal activity. This applies to proliferation as well as other crimes in which criminals target free zones specifically because of their particular vulnerabilities. In this context, relying on the revised Kyoto Convention in its current form, in which states can voluntarily support Specific Annex D, is inadequate. Here several options are available:

- Amend the Kyoto Convention, bringing the section regarding free zones into the General Annex rather than the Specific Annex, in order for them to be binding on signatory states. In addition, better define free zones and create more specific practices that states should follow;
- In the case it is not possible to amend the Kyoto Convention, identify other international legal instruments that can be used to create obligations for states. For example, through the United Nations Security Council 1540 framework, the 1540 Committee may consider the issue of free zones it their comprehensive reviews and reports, and may consider specifically mentioning obligations for states in the WMD field in subsequent Resolutions amending 1540;
- Create and use a common definition of free zones, and their typologies, in export control
 regimes. Include specific commitments for Member States not only through best practices
 but also through obligations written into regime guidelines;
- Integrate free zone definitions and awareness-raising within Proliferation Security Initiative activities and proceedings;

• Until any of the above steps can be accomplished, use public information regarding states that have not expressed support for Specific Annex D of the revised Kyoto Convention to apply political and economic pressure for them to do so. This should apply especially to those States with the largest amount of free zone traffic as well as those that have appeared as the most common targets of illicit trade.

Empower Customs

As described previously in this article, stripping Customs authorities of their revenue collection power inadvertently has the effect of further erosion of their other non-tariff related responsibilities as well, such as detection, inspection, and interdiction. While the revised Kyoto Convention specifically states that this should not be the case, given that the free zone part of the Convention is voluntary, Customs authorities may not have the legal basis to defend their non-tariff duties and assert more control in free zones. Due to the speed and efficiency expected of free zones by the economic actors using them, and the potential economic and investment benefits they bring to countries, without a more firm mandate, Customs authorities may have more reason to turn a blind eye to free zone activity than to risk opening a Pandora's box.

In the years since the passage of UNSCR 1540, however, increased attention given to the importance of strategic trade international implementation and enforcement has influenced Customs authorities in important ways. In 2013, calls for action by Member States led the WCO to launch the Strategic Trade Control Enforcement (STCE) Project.⁴¹ This project underscores the WCO's increased attention to the role of Customs authorities in international security, specifically in the domains terrorism, proliferation of weapons and materials of mass destruction, trafficking of small arms and explosives, and illicit diversion of dual-use goods.⁴² The three main activities of the STCE are the organization of awareness-raising seminars, the production of a comprehensive STCE training curriculum for Customs and co-ordination of a global strategic trade law enforcement operation. The project has also issued an implementation guide.⁴³ The increased attention by the WCO to international security has also been underscored by the Punta Cana Resolution of December 2015 that resolved for the organization to take certain specific actions to increase the authority and effectiveness of Customs authorities in the security field.⁴⁴

The positive trend of expanding the role and duties of Customs beyond mere revenue collection may provide the necessary mechanism to tie the security vulnerabilities of free zones, especially in the strategic trade context, to WCO awareness and capability-enhancing security-related projects. Several concrete actions in this regard could be:

[&]quot;Strategic Trade Control Enforcement Project," World Customs Organization, http://www.wcoomd.org/en/topics/enforcement-and-compliance/activities-and-programmes/security-programme/stce-project.aspx.

⁴² Ibid.

^{43 &}quot;Strategic Trade Control Enforcement: Implementation Guide," World Customs Organization, 2014, http://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/~/media/7A05799E8D3A46C8B8355175EEBA4322.ashx.

Punta Cana Resolution, World Customs Organization, December 2015.

- Similar to Operation Gryphon, which focused on free zones and the illicit tobacco trade, or Operation Cosmo, which focused on cross-border trade in strategic goods, conduct a WCO-led exercise for Customs authorities specifically on free zones and strategic goods;
- Revise the WCO Strategic Trade Customs Enforcement guide to include a section on transit and trans-shipment, with special attention given to outlining and reinforcing Customs responsibilities in free zones;
- Introduce the topic of free zones and the rights and responsibilities of Customs in awareness-raising and capacity-building activities of the STCE;
- Conduct outreach to high-level government officials involved in order to raise their awareness regarding the importance of Customs activities in free zones, prioritizing such outreach to countries that pose the highest security risk;
- Within the framework of capacity-building programs that focus on the creation and updating
 of strategic trade legislation, encourage partner countries to support Specific Annex D of
 the revised Kyoto Convention as well as check that appropriate national legislation is in
 place to allow Customs authorities to exercise their detection, inspection, and interdiction
 responsibilities;
- At the international, regional, and national level, provide more resources for Customs authorities to act in free zones.

Training and Awareness

While the first steps to secure free zone vulnerabilities *vis-à-vis* strategic goods must start with legal frameworks and Customs, awareness raising and training may be considered for other actors operating in free zones as well, mainly free zone operators, personnel and administrators, financial bodies and exporters. Regarding free zone operators, according to a Financial Action Task Force (FATF) report, the way that free zones have been managed and operated in the last several decades has changed dramatically.⁴⁵ Previously, zones were run by governmental agencies. Most zones currently are run by private companies or through private-public partnerships. In 2005, 62% zones in developing countries were run by the private sector whereas in the 1980, less than 25% of such zones were private.⁴⁶ This liberalization has led to an increase in the number and kinds of actors doing business through free zones.

Training may be considered for all free zone personnel and administrators whether they are governmental or private in order to raise their awareness of security risks posed by WMD proliferation through free zones. Such training need not be time or resource intensive, but rather focus strictly on basic concepts and raising awareness. It should be given to all personnel, taking care to account for frequent changes in personnel that may occur.

Financial Action Task Force, "Money Laundering Vulnerabilities of Free Trade Zones," March 2010, http://www.fatf-gafi.org/media/fatf/documents/reports/ML%20vulnerabilities%20of%20Free%20Trade%20Zones.pdf.

G Akinci, and J. Crittle, *Special Economic Zones: Performance, Lessons Learned, and Implications for Zone Development* (Washington DC: FIAS, World Bank Group, 2008).

Outreach to exporters, as part of standard enterprise outreach conducted by governments and international organizations to their own exporters or as part of global capacity-building, may also incorporate awareness raising specifically on the risks of free zones. Exporters should be encouraged to scrutinize orders that mention free zones along the supply chain. In such cases, exporters should pay particular attention for other signs or "red flags" of potential diversion or criminal activity. Exporters should be also encouraged to integrate awareness of free zone risks in their internal compliance programs (ICPs) and training.

Further enhancement of communication and cooperation between zone operators, exporters and governmental competent authorities can also contribute to more effective risk-assessment and intelligence regarding patterns and trends.

Conclusions and Further Research

This article has analyzed vulnerabilities of free zones specific to strategic goods that can be used in WMD proliferation by looking at the overarching international and regional legal frameworks governing free zones, specific vulnerabilities of free zones in the context of the global supply chain, and presenting several cases of free zones being used in WMD proliferation. In addition, the article has offered a variety of specific actions that can be taken by governments and the international community in order to mitigate the risks and secure the vulnerabilities posed by free zones to nonproliferation efforts.

Above all, however, the strategic trade researcher and practitioner community should acknowledge the important contribution they can make to implementing measures targeting free zones. Further research must be conducted on current practices in free zones, especially those most at risk of being used by proliferation networks, and good practices in this specific field must be identified. Research may also focus on the gathering of proliferation cases involving free zones and the upkeep of documentation of such cases in the future. Finally, research organizations can help raise awareness by organizing workshops and forums where all actors involved, including policy-makers, exporters, free zone personnel, competent authorities, and others can discuss and offer further ideas for how to tackle proliferation risks posed by free zones.

The number of free zones worldwide will continue to increase, especially in countries seeking ways to enhance economic performance, trade, and investment. However, the risks posed by WMD proliferation, whether to state or non-state actors, remains a hugely important international security challenge. Proliferators will continue to search for the weakest links in the global supply chain, and free zones will remain an easy target until greater attention and action is focused on mitigating the risks they pose. Such action does not mean sacrificing the economic benefits of free zones, but rather investing resources into allowing such benefits to continue while enhancing security through targeted nonproliferation measures.

⁴⁷ Some typical red flag indicators can be found on the U.S Department of Commerce website. See "Red Flag Indicators," United States Department of Commerce, Bureau of Industry and Security, https://www.bis.doc.gov/index.php/enforcement/oee/compliance/23-compliance-a-training/51-red-flag-indicators.