

# II. Strategic trade controls: countering the proliferation of weapons of mass destruction

SIBYLLE BAUER, AARON DUNNE AND IVANA MIČIĆ

## I. Introduction

In 2010 international strategic trade controls continued along the path of enhanced international cooperation, complemented by additional coercive measures targeting states and non-state actors to prevent the proliferation of weapons of mass destruction (WMD).<sup>1</sup> In parallel, the international debate and associated activity have moved on from the traditional focus on controlling exports to encompass a wider range of activities, including the control of transit, trans-shipment, financing and brokering. These developments reflect the evolving nature of procurement for WMD programmes and the need to adopt new legal concepts and enforcement tools to counter the threat that a state or non-state actor will obtain or develop WMD. This threat is compounded by a number of factors: the increasing number of actors involved in procurement, scientific and technological advances, the wider availability of non-listed dual-use items, the increasing complexity of procurement networks and the evolving nature of global trade.<sup>2</sup>

Many of the states that produce the items that can be used in WMD programmes cooperate on strategic trade controls in informal groups with limited membership. Section II of this chapter explores recent developments in these groups.

To implement United Nations Security Council resolutions and wider trade control norms, countries have started to enhance and expand domestic, regional and international capacity-building efforts and technical assistance. This applies in particular to Resolution 1540, which imposes binding obligations on all states to establish domestic controls to prevent

<sup>1</sup> The term 'strategic trade controls' is often defined as including conventional arms as well as dual-use items including software and technology. Unless otherwise stated, this chapter refers to controls on dual-use items that may be of used in WMD (nuclear, biological and chemical weapons) or their means of delivery.

<sup>2</sup> See Bauer, S. and Mičić, I., 'Controls on security-related international transfers', *SIPRI Yearbook 2010*. Dual-use items are items that can be used for both civilian and military purposes. 'Non-listed' dual-use items do not appear in national or international control lists but can also be controlled if their intended use is in a WMD or missile programme.

the proliferation of WMD and their means of delivery.<sup>3</sup> Section III analyses these efforts.

Coercive measures are designed to change the behaviour of states and non-state actors that are widely considered to pose a threat to international security. These include UN arms embargoes, which have historically focused on supplies of conventional arms, but are now also used to target states of international proliferation and security concern—specifically, Iran and the Democratic People’s Republic of Korea (DPRK or North Korea). Another new development is that these UN sanctions have sought to counter the financing of proliferation and to interdict the movements of proliferation-related items. Section IV examines these coercive measures.

The conclusions are presented in section V. Appendix 11A outlines developments in the imposition and application of multilateral arms embargoes in 2010, with a focus on conventional weapons.

## II. Regimes and initiatives

### **Trade control regimes**

During 2010 four informal, non-legally binding, multilateral trade control regimes—the Australia Group, the Missile Technology Control Regime (MTCR), the Nuclear Suppliers Group (NSG) and the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies—continued to work on consensus-based decisions to strengthen strategic trade controls.<sup>4</sup> No new members were admitted during 2010, although some membership applications were pending, and Iraq became the 131st state to subscribe to the Hague Code of Conduct against Ballistic Missile Proliferation.<sup>5</sup>

All four regimes continued the practice of regularly updating control lists. The Wassenaar Arrangement gave particular attention to technological developments relating to counterterrorism and continued efforts to develop a more ‘user friendly’ control list for exporters and licensing authorities.<sup>6</sup> The MTCR did not have a plenary in 2010 and so the changes agreed during an intersessional technical experts meeting (TEM)—including revised controls for hybrid rocket motors and clarification of

<sup>3</sup> UN Security Council Resolution 1540, 28 Apr. 2004.

<sup>4</sup> For brief descriptions and lists of the participants in these 4 regimes and the Zangger Committee see annex B in this volume. For earlier developments see previous editions of the SIPRI Yearbook.

<sup>5</sup> For a full list of subscribing states see annex B in this volume.

<sup>6</sup> Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, 2010 Plenary Meeting, Public Statement, Vienna, 10 Dec. 2010, <[http://www.wassenaar.org/publicdocuments/index\\_PS\\_PS.html](http://www.wassenaar.org/publicdocuments/index_PS_PS.html)>.

controls on ferrocene derivatives—were not formally adopted.<sup>7</sup> The Australia Group adopted a number of changes and accepted a specific recommendation from its technical advisory group to remain vigilant about the proliferation risks of new and emerging technologies.<sup>8</sup> Indeed, all the technical groups tasked with updating control lists face the challenge of keeping pace with scientific and technological advances.

Outreach activities were conducted by participating states for all four regimes. The scope of these activities has widened from explaining policy and providing guidance to more technical and enforcement activities. For example, the Wassenaar Arrangement briefed non-participating states on technical changes to its control lists and emphasized the importance of interaction with industry and non-participating states.<sup>9</sup> The MTCR conducted outreach on enforcement issues and on risk assessment for granting or denying export licences.<sup>10</sup> The Australia Group highlighted the importance of engaging with industry and academia and stated that intangible transfers of technology (ITT)—the transfer of know-how by a person or the transfer of technology in non-physical form—remain a priority. However, its outreach publication on ITT, which had been announced in 2009, was not issued during 2010.<sup>11</sup>

At its 2010 annual plenary meeting, held in New Zealand in June, the NSG continued to discuss the challenges posed by ITT and end-use control. It also discussed proposals to place additional conditions on the transfer of sensitive nuclear fuel cycle technologies (i.e. technologies intended for use in enrichment and reprocessing) to states that do not already possess them. Agreeing a list of specific criteria that countries would have to meet to be eligible to receive such transfers is proving difficult. Some countries are concerned that some proposed criteria may limit their option to develop a civil nuclear programme in the future—one particularly contentious proposal is that agreement on an additional safeguards protocol with the International Atomic Energy Agency (IAEA) be made a condition of supply.<sup>12</sup> NSG members again failed to reach agreement on the proposals—causing continued frustration among some NSG participants<sup>13</sup>—but pledged to ‘continue considering ways to further strengthen guidelines dealing with

<sup>7</sup> The TEM took place in London on 9–11 June 2010. US Department of Commerce, Bureau of Industry and Security, ‘2011 report on foreign policy-based export controls’, <[http://www.bis.doc.gov/news/2011/2011\\_fpreport.pdf](http://www.bis.doc.gov/news/2011/2011_fpreport.pdf)>, p. 3.

<sup>8</sup> Australia Group, ‘2010 Australia Group plenary’, 4 June 2010, <[http://www.australiagroup.net/en/agm\\_june2010.html](http://www.australiagroup.net/en/agm_june2010.html)>.

<sup>9</sup> Wassenaar Arrangement (note 6).

<sup>10</sup> An outreach activity was held in Paris on 14–15 June 2010, immediately after the MTCR’s annual Reinforced Points of Contact meeting. US Department of Commerce (note 7), p. 81.

<sup>11</sup> Australia Group (note 8).

<sup>12</sup> Bauer and Mičić (note 2), pp. 460–61.

<sup>13</sup> Horner, D., ‘U.S. official mulls ending NSG rule revamp’, *Arms Control Today*, vol. 40. no. 9 (Nov. 2010).

the transfer of enrichment and reprocessing technologies'.<sup>14</sup> The NSG Consultative Group met in Vienna on 10–11 November 2010 to review the guidelines on sensitive exports but made no progress.<sup>15</sup>

Debate continued within the NSG on the implications of the United States-led decision in 2008 to exempt India from NSG guidelines, thus allowing it to participate in international nuclear commerce.<sup>16</sup> In particular, India secured exemption from the condition that the recipient of nuclear technology from an NSG member must have comprehensive IAEA safeguards covering all of its nuclear activities and facilities.<sup>17</sup> Some observers expressed concern that the exemption had set a precedent that paved the way for further nuclear cooperation between China and Pakistan, which in turn threatened to further erode the credibility of the NSG.<sup>18</sup>

In 2010 China indicated that it would proceed with the supply of two new civil nuclear power reactors to Pakistan.<sup>19</sup> The reactors are to be supplied under a bilateral agreement concluded in 2003, about which China informed the NSG when it joined the group in 2004. As 2010 ended it was unclear whether China would explicitly request an exemption for its civil nuclear trade with Pakistan based on the precedent of the Indian waiver or would claim that implementation of the 2003 deal did not need NSG approval since it preceded China's NSG membership.<sup>20</sup>

The issue is likely to be raised, together with the proposed revision of the guidelines for sensitive exports, at the NSG plenary meeting scheduled to take place in 2011 in the Netherlands.<sup>21</sup> The plenary is also likely to take up the controversial issue of whether India should be considered for full membership of the NSG, as advocated by the USA.

## The Proliferation Security Initiative

Since its establishment in 2003, the Proliferation Security Initiative (PSI) has had some success in enhancing international cooperation to interdict illicit shipments destined for WMD programmes and has 'strengthen[ed]

<sup>14</sup> Nuclear Suppliers Group, Press statement, Christchurch, 21–25 June 2010, <<http://www.nuclearsuppliersgroup.org/Leng/05-public.htm>>.

<sup>15</sup> Horner, D., 'India seen unlikely to join NSG soon', *Arms Control Today*, vol. 40. no. 10 (Dec. 2010).

<sup>16</sup> Anthony, I. and Bauer, S., 'Controls on security-related international transfers', *SIPRI Yearbook 2009*.

<sup>17</sup> For a list of states which have safeguards agreements in force with the IAEA see annex A in this volume.

<sup>18</sup> Hibbs, M., 'The breach', *Foreign Policy*, 4 June 2010.

<sup>19</sup> Dyer, G., Bokhari, F. and Lamont, J., 'China to build reactors in Pakistan', *Financial Times*, 28 Apr. 2010. China had previously supplied 2 reactors to Pakistan under a deal concluded in 1991.

<sup>20</sup> Miglani, S., 'China pursues Pakistan nuclear deal; dilemma in West', Reuters, 15 Dec. 2010, <<http://af.reuters.com/article/energyOilNews/idAFL3E6NF08Q20101215>>.

<sup>21</sup> Horner (note 15).

efforts by the international community to prevent proliferation'.<sup>22</sup> However, significant challenges, and questions about approach and direction, remain.<sup>23</sup> At the November 2010 meeting of the PSI Operational Experts Group (OEG)—the PSI's steering committee—it was noted that the PSI 'is at a crossroads, faced with ever growing complex proliferation methods' and that it needs to 'produce innovative ideas and constructive dialogue'.<sup>24</sup>

During its formative years, the PSI was largely military in nature: OEG delegations were often led by representatives from members' defence ministries and exercises focused on the 'model interdiction scenario' of using military assets to forcibly interdict suspect vessels on the high seas.<sup>25</sup> However, the constraints of maritime law, the nature of maritime trade, and the practicalities of detecting and securing proliferation-sensitive items on the high seas have necessitated a refocus on the more realistic scenario of the voluntary diversion of a vessel to a friendly port and the use of customs powers to search and seize suspect items.<sup>26</sup>

Despite this change, PSI exercises conducted in 2010 still retained a significant and often high-profile military dimension. For example, the Pacific Protector 2010 PSI exercise was hosted by the Australian Department of Defence, although the exercise was led by the Australian Customs and Border Protection Service and involved 'no Defence assets';<sup>27</sup> the US-led Leading Edge 2010 PSI exercise, held in Abu Dhabi in partnership with the United Arab Emirates' armed forces, began with military assets undertaking an interdiction, although it ended with a 'tabletop' component exploring customs and legal issues;<sup>28</sup> and the Eastern Endeavour 2010 PSI exercise also involved military assets in a maritime interdiction and

<sup>22</sup> New Zealand Ministry of Foreign Affairs and Trade (MFAT), International Security and Disarmament Division, *Proliferation Security Initiative (PSI): Model National Response Plan* (MFAT: Wellington, Dec. 2007), p. 4. For a brief description and list of participants in the PSI see annex B in this volume.

<sup>23</sup> This view has been expressed to the authors by officials familiar with the PSI and its activities from a number of states represented in the PSI Operational Experts Group.

<sup>24</sup> Japanese Ministry of Foreign Affairs, 'The Proliferation Security Initiative (PSI) Operational Experts Group (OEG) Tokyo meeting', 2 Nov. 2010, <[http://www.mofa.go.jp/announce/announce/2010/11/1102\\_01.html](http://www.mofa.go.jp/announce/announce/2010/11/1102_01.html)>. On the OEG see New Zealand Ministry of Foreign Affairs and Trade (note 22), p. 6.

<sup>25</sup> E.g. the interdiction of the *So San* in 2002. 'Scud affair draws US apology', BBC News, 12 Dec. 2002, <<http://news.bbc.co.uk/2/hi/2569687.stm>>; and Ahlström, C., 'The Proliferation Security Initiative: international law aspects of the Statement of Interdiction Principles', *SIPRI Yearbook 2005*.

<sup>26</sup> E.g. the interdiction of the *BBC China* in 2003. Reynolds, P., 'On the trail of the black market bombs', BBC News, 12 Feb. 2004, <<http://news.bbc.co.uk/2/hi/3481499.stm>>.

<sup>27</sup> Australian Department of Foreign Affairs and Trade, 'Regional Operational Experts Group Meeting and Exercise Pacific Protector '10', Media release, 13 Sep. 2010, <<http://www.dfat.gov.au/media/releases/department/2010/100913.html>>.

<sup>28</sup> US Embassy, Abu Dhabi, 'Remarks of Ambassador Richard Olson at US-UAE Proliferation Security Initiative training', 25 Jan. 2010, <[http://abudhabi.usembassy.gov/pr\\_01252010.html](http://abudhabi.usembassy.gov/pr_01252010.html)>; and US Navy, 'Exercise Leading Edge 2010 begins', 29 Jan. 2010, <[http://www.navy.mil/search/display.asp?story\\_id=50900](http://www.navy.mil/search/display.asp?story_id=50900)>.

included a ‘tabletop’ component involving inter-agency teams of officials who explored the ‘legal, diplomatic, law enforcement, intelligence and financial aspects of [interdiction]’.<sup>29</sup> Some OEG members believe this continued military focus diverts attention away from more realistic scenarios that would better serve the PSI’s stated objectives.<sup>30</sup>

In addition, the PSI still faces significant external challenges: the 1982 United Nations Convention on the Law of the Sea (UNCLOS) does not allow for the interdiction of vessels on the high seas suspected of transporting WMD or their means of delivery;<sup>31</sup> UN Security Council Resolution 1540 does not explicitly mention the PSI;<sup>32</sup> and many large or fast-growing countries—among them Brazil, China, India and South Africa—and many strategically important states along proliferation supply chains have not endorsed the PSI.<sup>33</sup>

Although PSI participants are mindful of these challenges and must overcome them if US President Barack Obama’s pledge to strengthen the PSI is to be achieved, the ‘innovative ideas and constructive dialogue’ desired to overcome these challenges have not yet been forthcoming.<sup>34</sup>

### III. Capacity-building efforts

#### **Regional implementation of Security Council Resolution 1540**

UN Security Council Resolution 1540, which both imposes binding commitments on UN member states and provides a mandate for technical assistance on non-proliferation issues, has become the reference point in international discussions on strategic trade controls.<sup>35</sup> During 2010 the UN concluded a series of regional and sub-regional seminars around the world to raise awareness of Resolution 1540 obligations and to assist implemen-

<sup>29</sup> Rudd, K., Australian Minister for Foreign Affairs, and Smith, S., Australian Minister for Defence, ‘Australia participates in the Republic of Korea’s Proliferation Security Initiative (PSI)’, Media release, 13 Oct. 2010, <[http://www.foreignminister.gov.au/releases/2010/kr\\_mr\\_101013.html](http://www.foreignminister.gov.au/releases/2010/kr_mr_101013.html)>.

<sup>30</sup> Correspondence and discussions with officials from OEG member states familiar with PSI and its activities.

<sup>31</sup> United Nations Convention on the Law of the Sea, opened for signature 10 Dec. 1982, entered into force 16 Nov. 1994, *United Nations Treaty Series*, vol. 1833 (1994).

<sup>32</sup> UN Security Council Resolution 1540 (note 3). However, para. 10 of Resolution 1540 ‘calls upon all States, in accordance with their national legal authorities and legislation and consistent with international law, to take cooperative action to prevent illicit trafficking in nuclear, chemical or biological weapons, their means of delivery, and related materials’. On Resolution 1540 see sections III and IV below.

<sup>33</sup> Of the so-called BRICS states—Brazil, Russia, India, China and South Africa—only Russia has endorsed the PSI.

<sup>34</sup> White House, ‘Remarks by President Barak Obama: Hradcany Square, Prague, Czech Republic’, 5 Apr. 2009, <[http://www.whitehouse.gov/the\\_press\\_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered/](http://www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered/)>.

<sup>35</sup> UN Security Council Resolution 1540 (note 3).

tation.<sup>36</sup> These events provided a platform for the exchange of experiences in implementation and capacity building; exploration of regional and national approaches to implementation; and discussion of implementation options, as the wording of the resolution leaves scope for differing national interpretations and applications.

Resolution 1540 has provided the international legal basis for the introduction and tightening of national legislation on WMD-related issues, in particular on export, transit, trans-shipment and brokering controls for dual-use items. In 2010 Malaysia became the second country in South East Asia (after Singapore) to adopt comprehensive national legislation on these matters.<sup>37</sup>

The European Union (EU) responded to Resolution 1540's requirements by adopting a revised version of its dual-use regulation, Council Regulation (EC) 428/2009, which entered into force in August 2009.<sup>38</sup> The regulation is directly applicable law across the EU and is implemented and enforced by all 27 member states. The issues arising from implementing the new provisions are discussed in two working groups: the Council Working Party on Dual-use Goods and the Dual-Use Coordination Group (known as the Article 23 Group).<sup>39</sup> In 2010, in support of the 'New Lines for Action by the European Union in combating the proliferation of weapons of mass destruction and their delivery systems' (NLA), the European Commission and the EU member states organized three peer visits to discuss implementation of the new regulation.<sup>40</sup> These visits, which followed on from a peer

<sup>36</sup> In 2010 events were held in Split, Croatia, for South Eastern Europe (14–17 June) and in Hanoi, Viet Nam, for South East Asia (28 Sep.–1 Oct.). For a list of all events in the series see United Nations, Security Council, 1540 Committee, 'Outreach events', <<http://www.un.org/sc/1540/outreachevents.shtml>>.

<sup>37</sup> Strategic Trade Act 2010, Malaysian Act no. 708, assented to 5 Apr. 2010, *Government Gazette* (Kuala Lumpur), 10 June 2010. The document explaining the legal background specifically refers to Resolution 1540. Malaysian Ministry of International Trade and Industry, 'Strategic Trade Act 2010', [n.d.], <[http://www.miti.gov.my/cms/content.jsp?id=com.tms.cms.section.Section\\_356e3af1-c0a81573-272f272f-b7977e99](http://www.miti.gov.my/cms/content.jsp?id=com.tms.cms.section.Section_356e3af1-c0a81573-272f272f-b7977e99)>.

<sup>38</sup> 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*, L134, 29 May 2009. See Bauer and Mičić (note 2), pp. 462–64.

<sup>39</sup> Council Regulation (EC) no. 428/2009 (note 38), Article 23. On enforcement see also Wetter, A., *Enforcing European Union Law on Exports of Dual-use Goods*, SIPRI Research Report no. 24 (Oxford University Press: Oxford, 2009).

<sup>40</sup> Council of the European Union, 'Council Conclusions and new lines for action by the European Union in combating the proliferation of weapons of mass destruction and their delivery systems', 17172/08, 17 Dec. 2008, <<http://register.consilium.europa.eu/pdf/en/08/st17/st17172.en08.pdf>>. In Dec. 2010 the Council extended the deadline for achieving the NLA's goals from the end of 2010 to the end of 2012. Council of the European Union, 'New lines for action by the European Union in combating the proliferation of weapons of mass destruction and their delivery systems: Council Conclusions', 17078/10, 16 Dec. 2010, <<http://register.consilium.europa.eu/pdf/en/10/st17/st17078.en10.pdf>>.

review in 2004, focused on legal and licensing issues as well as on catch-all provisions, transit and brokering.<sup>41</sup>

There is also a proposal to strengthen the enforcement of strategic trade controls through enhanced information exchange at the national and EU levels and harmonized training activities for customs officers. The Commission expects to launch a training programme on EU export controls for licensing and customs officials in 2011.<sup>42</sup> The effective implementation and enforcement of the dual-use regulation will continue to be a key task for member states.

### European Union cooperation measures

During the 1990s, the EU provided technical assistance on security and non-proliferation issues such as detecting the trafficking of radiological and nuclear materials. However, it was ad hoc, primarily focused on the former Soviet Union and not underpinned by a common strategy.<sup>43</sup> In 2006 the EU created the Instrument for Stability (IFS) to respond to the threats outlined in the 2003 European Security Strategy and the complementary EU Strategy against the Proliferation of WMD by providing financial support for capacity-building measures in non-EU countries.<sup>44</sup> The IFS has assigned €320 million for non-proliferation and chemical, biological, radiological and nuclear (CBRN) risk-mitigation activities for the period 2007–13.<sup>45</sup>

<sup>41</sup> The first was to the UK (London, 16–17 Mar. 2010), the second to Belgium and Denmark (Copenhagen, 18–19 Mar.), and the third to Germany and the Netherlands (Bonn, 8–9 Nov. 2010). On the 2004 peer review see Council of the European Union, ‘Council Statement of 13 December 2004 further to the first stage of the Peer Review of Member States’ Export Control Systems for Dual Use Goods conducted in the framework of the EU Strategy against Proliferation of Weapons of Mass Destruction’, 16069/04, 13 Dec. 2004, <<http://www.consilium.europa.eu/uedocs/cmsUpload/st16069en04st.pdf>>.

<sup>42</sup> Council of the European Union, ‘Outcome of proceedings of the Working Party on Dual Use Goods’, Brussels, 5917/10, 29 Jan. 2010, <<http://register.consilium.europa.eu/pdf/en/10/st05/st05917.en10.pdf>>; and European Commission, Directorate General for Trade, *Management Plan 2011* (Publications Office: Brussels, Jan. 2011), <<http://trade.ec.europa.eu/doclib/html/147374.htm>>, p. 21.

<sup>43</sup> Substantial technical assistance on CBRN issues has also been provided by EU member states, in particular Germany and the UK. Technical assistance in the area of strategic trade controls has been delivered almost exclusively within the EU Cooperation Programme. A number of countries have provided technical assistance on export control issues. The US Export Control and Related Border Security Assistance (EXBS) programme is the biggest provider, <<http://www.state.gov/t/isn/ecc/index.htm>>. Technical assistance programmes on CBRN issues by international organizations and different governments have been covered in previous editions of the SIPRI Yearbook.

<sup>44</sup> Regulation (EC) no. 1717/2006 of the European Parliament and of the Council of 15 Nov. 2006 establishing an Instrument for Stability, *Official Journal of the European Union*, L327, 24 Nov. 2006; Council of the European Union, ‘A secure Europe in a better world: European security strategy’, 12 Dec. 2003, <<http://www.consilium.europa.eu/showPage.aspx?id=718>>; and Council of the European Union, ‘Fight against the proliferation of weapons of mass destruction: EU Strategy against Proliferation of Weapons of Mass Destruction’, 15708/03, 10 Dec. 2003, <<http://www.consilium.europa.eu/showPage.aspx?id=718>>.

<sup>45</sup> The total IFS budget is €2062 million and includes funding for crisis management, conflict prevention and disaster response. In the area of CBRN risk mitigation, the IFS is complemented by the Nuclear Safety Cooperation Instrument, which provides €524 million for 2007–13, and the Pre-



The IFS-funded EU programme Cooperation on Export Control developed from an export control component of an EU pilot project on cooperative threat reduction and two pilot projects specifically dedicated to technical assistance on dual-use export controls.<sup>46</sup> From the first pilot project to the end of 2010, cooperation expanded from 4 to 21 countries, with an additional 10 countries invited to join in 2011. Like the earlier pilot projects, the programme is implemented by the German Federal Office of Economics and Export Control (BAFA) and dependent on experts from EU member states.

During 2010 the EU started to broaden the scope of other non-proliferation cooperation programmes to Africa, the Caucasus, Central Asia, the Middle East and South East Asia.<sup>47</sup> Funding is to be allocated, and projects developed, on a regional basis through CBRN Centres of Excellence. These aim to build on and expand regional expertise on CBRN issues, complemented as necessary by expertise from the EU and other regions. It will be up to the partner countries and regions to propose the scope, type and issue area for EU-funded projects implemented through this conceptual and financial framework.<sup>48</sup>

UN Security Council Resolution 1540 has expanded the debate from a Western-defined export control agenda to a broader discussion on CBRN issues based on international legal requirements. A new focus has emerged on issues closer to the immediate concerns of developing countries, such as disease surveillance and the management of hazardous materials, and thus also on accidents and incidents rather than non-proliferation and terrorism. This is reflected in the EU's CBRN Centres of Excellence initiative, which aims to shift the design, development and ownership of technical assistance to partner countries and regions, and to build on, expand and connect regionally available expertise.

accession Instrument, which includes some funding for CBRN issues. Council Regulation (EURATOM) no. 300 (2007) of 19 Feb. 2007 establishing an Instrument for Nuclear Safety Cooperation, *Official Journal of the European Union*, L81, 22 Mar. 2007; and Council Regulation (EC) no. 1085/2006 of 17 July 2006 establishing an Instrument for Pre-accession Assistance (IPA), *Official Journal of the European Union*, L210, 31 July 2006.

<sup>46</sup> The first pilot project, in 2004, was implemented by SIPRI during 2005 and 2006. The 2005 and 2006 pilot projects were implemented by the German Federal Office of Economics and Export Control (BAFA) in partnership with SIPRI. See BAFA, 'Assistance in export control of dual-use goods', <<http://www.eu-outreach.info/>>.

<sup>47</sup> These are prepared through preparatory missions of EU member state experts funded through the so-called Expert Support Facility.

<sup>48</sup> Information on the CBRN Centres of Excellence is available at <<http://www.cbrn-coe.eu/>>.

## IV. Coercive measures

### **Proliferation-related United Nations Security Council resolutions**

Since the UN Security Council adopted Resolution 1540 in 2004, two countries—Iran and North Korea—have been targeted in nine country-specific resolutions on proliferation matters, seven of which were based on Chapter VII of the UN Charter.<sup>49</sup> Two of these resolutions were passed in 2010. Resolution 1928 extended until 12 June 2011 the mandate of the panel of experts monitoring the sanctions imposed on North Korea following its second nuclear test in May 2009.<sup>50</sup> Resolution 1929 imposed the fourth round of sanctions on Iran following its refusal to abide by previous resolutions and to cease its uranium enrichment programme.<sup>51</sup>

Resolution 1929 repeats the demand that Iran ‘suspend its enrichment activities and peacefully resolve outstanding concerns over the nature of its nuclear programme’.<sup>52</sup> It contains a wide range of new and extended measures including (a) an updated list of controlled dual-use items and expanded range of non-listed dual-use items controlled if their intended end-use is in, or may be in, Iran’s nuclear or missile programmes; (b) a prohibition on the supply of heavy military equipment to Iran; (c) a prohibition on investment in and supply of financial services associated with Iran’s nuclear and missile programmes; (d) a call for the inspection of cargo shipments to and from Iran and for cooperation with requests to inspect vessels on the high seas where there is reason to believe that they contain items destined for Iran’s nuclear or missile programmes; and (e) a list naming 41 additional entities and individuals involved in nuclear or ballistic missile activities or associated with the Islamic Revolutionary Guards Corps or Islamic Republic of Iran Shipping Lines.<sup>53</sup>

The sanctions contained in the four Security Council resolutions targeting Iran—resolutions 1737, 1747, 1803 and 1929—include measures intended to increase the difficulty, time and cost of procuring items for the Iranian

<sup>49</sup> UN Security Council Resolution 1540 (note 3). Chapter VII of the UN Charter authorizes the Security Council to issue binding resolutions in response to threats to international peace and security, as defined by the UN Security Council. Charter of the United Nations, signed 26 June 1945, entered into force 24 Oct. 1945, <<http://www.un.org/en/documents/charter/>>.

<sup>50</sup> UN Security Council Resolution 1928, 7 June 2010. The panel and the sanctions were established by UN Security Council Resolution 1874, 12 June 2009. See also appendix 11A, section II, and chapter 8, section VI, in this volume. On the earlier resolutions see Bauer and Mičić (note 2).

<sup>51</sup> UN Security Council Resolution 1929, 9 June 2010. Resolution 1929 extends resolutions 1737 of 23 Dec. 2006, 1747 of 24 Mar. 2007 and 1803 of 3 Mar. 2008. On the nuclear proliferation concerns behind these resolutions see Kile, S. N., ‘Nuclear arms control and non-proliferation’, *SIPRI Yearbook 2008*, pp. 338–49.

<sup>52</sup> UN News Service, ‘Citing Iran’s failure to clarify nuclear ambitions, UN imposes additional sanctions’, 9 June 2010, <<http://www.un.org/apps/news/story.asp?NewsID=34970>>.

<sup>53</sup> For a comprehensive summary see Australian Department for Foreign Affairs and Trade, ‘United Nations Security Council sanctions against Iran: Resolution 1929 of 9 June 2010’, [n.d.], <[http://www.dfat.gov.au/un/unscc\\_sanctions/unscc\\_1929.html](http://www.dfat.gov.au/un/unscc_sanctions/unscc_1929.html)>.

nuclear and missile programmes.<sup>54</sup> The Security Council thereby hopes to prolong the window of opportunity for securing a peaceful political solution to its concerns about Iran's nuclear programme, but it is too early to assess what contribution these resolutions will make. The resolutions that invoke Chapter VII powers create prohibitions that are legally binding on all UN member states and oblige those that—for economic, political or legal reasons—had previously been reluctant to impose tighter controls on Iranian proliferation activities.<sup>55</sup> Security Council resolutions are also often a strong basis for démarches to request action. An illustrative example can be found in a démarche request from the US Department of State to the US Embassy in Beijing for delivery to Chinese counterparts that states 'we believe the transfer of this controlled equipment to a company linked to [UN Security Council resolution]-designated entities would be prohibited pursuant to [Resolution] 1737'.<sup>56</sup>

### **Proliferation finance**

Proliferation finance is a comparatively new term in the non-proliferation lexicon. There is no universally accepted definition, although the working definition proposed by the Financial Action Task Force (FATF) is currently the most authoritative:

the act of providing funds or financial services which are used, in whole or in part, for the manufacture, acquisition, possession, development, export, trans-shipment, brokering, transport, transfer, stockpiling or use of nuclear, chemical or biological weapons and their means of delivery and related materials (including both technologies and dual use goods used for non-legitimate purposes), in contravention of national laws or, where applicable, international obligations.<sup>57</sup>

This definition covers the full spectrum of WMD proliferation, from development to use, and reflects the relatively new practice of exploring the financing of proliferation as an issue separate from export controls. It is important to note that the definition refers to the act of proliferation

<sup>54</sup> The EU and a number of individual states, including Japan and the USA, adopted measures in 2010 intended to reinforce and supplement the obligations contained in the Security Council resolutions targeting Iran. For the EU, see Council Decision of 26 July 2010 concerning restrictive measures against Iran (2010/413/CFSP), *Official Journal of the European Union*, L195, 27 July 2010; and Council Regulation (EU) no. 961/2010 of 25 Oct. 2010 on restrictive measures against Iran, *Official Journal of the European Union*, L281, 27 Oct. 2010.

<sup>55</sup> Charter of the United Nations (note 49), Chapter VII, articles 41–42.

<sup>56</sup> US Department of State, 'Additional information for China on the Malaysia-based company Electronics Component Limited', Cable to US Embassy in Beijing, no. 10STATE10900, 3 Feb. 2010, <<http://www.wikileaks.ch/cable/2010/02/10STATE10900.html>>.

<sup>57</sup> Financial Action Task Force (FATF), *Combating Proliferation Financing: A Status Report on Policy Development and Consultation* (FATF: Paris, Feb. 2010), p. 5. The FATF is an intergovernmental body which develops policies to combat money laundering and terrorist and proliferation financing. For a list of its members see annex B in this volume.

finance and makes no reference to knowledge, intent or negligence—elements that would usually need to be present for a criminal offence to have been committed.

As understanding of proliferation finance has developed, so have the measures employed to counter it. Four broad categories of measures to control proliferation finance are employed in practice: (a) a prohibition on the supply of financial services to entities under sanctions; (b) the freezing of sanctioned entities' assets;<sup>58</sup> (c) the reporting of suspicious activity by financial institutions;<sup>59</sup> and (d) the greater use of financial information—a key source of which will be the activity reported under item c—to support wider counter-proliferation efforts.

Agreement on how, and to what extent, states introduce such measures is still evolving, and different approaches are already evident, even among EU member states, especially in relation to the reporting of suspicious activity.<sup>60</sup> Nor is there a consensus on how effective these elements are in countering proliferation. However, for every item procured for proliferation, there are at least two associated acts of proliferation finance (the purchase and shipment of the items) and probably many more (e.g. letters of credit, insurance and agent fees). Therefore, as procurement networks and *modi operandi* become more sophisticated, and proliferation-sensitive items become more widely available, greater attention to proliferation finance is likely to contribute to wider non-proliferation efforts.

The FATF has taken a leading role in exploring proliferation finance. It has published a number of seminal reports, beginning in 2007 with guidance on implementing the financial provisions of UN Security Council resolutions intended to counter WMD proliferation and a 2008 report on proliferation finance typologies.<sup>61</sup> Following the publication of the typologies report, the FATF Working Group on Terrorist Financing and Money Laundering (WGTM) established a project team on proliferation financing to 'to develop policy options ... that could be considered in combating proliferation financing within the framework of existing United Nations Security Council Resolutions'.<sup>62</sup> The project team's report was published in February 2010 but was still under consideration and

<sup>58</sup> E.g. in the EU, asset freezing measures are included in Council Regulation no. 961/2010 (note 54).

<sup>59</sup> For the UK's approach to proliferation finance reporting see UK Financial Intelligence Unit, *Guidelines for Counter Proliferation Financing Reporting*, POC/0036/09 (Serious Organised Crime Agency: London, Dec. 2009).

<sup>60</sup> Walker, J., 'Proliferation Financing: opportunities for further disruption and prevention?', Presentation, 11th Annual International Export Control Conference, 8–10 June 2010, Kyiv, <<http://exportcontrol.org/pastconferences/2706c.aspx>>.

<sup>61</sup> FATF, *Guidance Regarding the Implementation of Financial Provisions of United Nations Security Council Resolutions to Counter the Proliferation of Weapons of Mass Destruction* (FATF: Paris, 29 June 2007); and FATF, *Proliferation Financing Report* (FATF: Paris, 18 June 2008).

<sup>62</sup> Financial Action Task Force (note 57), p. 4.

discussion by the WGTm by the end of the year. Further guidance on the implementation of Security Council resolutions is possible and ‘special recommendations’ on proliferation finance may be included in revised FATF standards.<sup>63</sup>

The FATF has proved itself to be a relatively effective vehicle for exploring and defining typologies and providing guidance on proliferation finance. It has a wide membership that represents most major financial centres across the world and develops and introduces standards that are commonly accepted. In addition, the FATF Mutual Evaluations Programme—a programme of multilateral peer reviews to monitor progress and provide support on the implementation of FATF recommendations—encourages effective implementation, benchmarking and the sharing of good practice.<sup>64</sup>

### **New insights into counter-proliferation activities**

A consequence of the sensitive nature of counter-proliferation activities is the limited transparency and availability of open source material. Only a small number of states publish annual reports that include data on the enforcement of dual-use export controls and these rarely go beyond a brief description of the roles played by various state authorities and the release of basic data.<sup>65</sup> It is therefore difficult to know the full extent and range of activities undertaken by states to counter proliferation. Most studies are therefore heavily dependent on open source material relating to a limited number of high-profile historical case studies.<sup>66</sup>

During 2010, WikiLeaks—an organization that publishes otherwise private documents from anonymous sources—began the gradual release of confidential diplomatic cables sent between US embassies and the US Department of State. Although these provide a US-centric insight, the cables have shed light on the extent and nature of international cooper-

<sup>63</sup> FATF, *The Review of the Standards: Preparation for the 4th Round of Mutual Evaluations* (FATF: Paris, Oct. 2010), p. 3. The FATF Standards are comprised of 40 recommendations on money laundering and 9 special recommendations on terrorist financing, commonly referred to as the FATF 40+9 Recommendations. They are recognized as international standards and have been endorsed by over 180 countries and jurisdictions. FATF, *FATF 40 Recommendations* (FATF: Paris, Oct. 2004); and FATF, *FATF IX Special Recommendations* (FATF: Paris, Feb. 2008).

<sup>64</sup> FATF, ‘Key principles for mutual evaluations and assessments’, [n.d.], <[http://www.fatf-gafi.org/document/34/0,3746,en\\_32250379\\_32236963\\_45572898\\_1\\_1\\_1\\_1,00.html](http://www.fatf-gafi.org/document/34/0,3746,en_32250379_32236963_45572898_1_1_1_1,00.html)>.

<sup>65</sup> The UK’s reports are probably the most comprehensive. British Foreign and Commonwealth Office, ‘Strategic export controls’, 11 Nov. 2010, <<http://www.fco.gov.uk/en/publications-and-documents/publications1/annual-reports/export-controls1>>; and British Parliament, ‘Arms export controls (committees on)’, [n.d.], <<http://www.parliament.uk/business/committees/committees-a-z/other-committees/committee-on-arms-export-controls/>>.

<sup>66</sup> E.g. the A. Q. Khan network. Recent accounts of the network include Albright, D., *Peddling Peril: How the Secret Nuclear Trade Arms America’s Enemies* (Free Press: New York, 2010); and Fitzpatrick, M., *Nuclear Black Markets: Pakistan, A. Q. Khan and the Rise of Proliferation Networks—A Net Assessment* (International Institute for Strategic Studies: London, 2007).

ation and activity in the area of counter-proliferation rarely seen outside diplomatic and intelligence circles. Further releases are likely to shed even more light on these activities.<sup>67</sup>

An illustrative series of cables relate to a number of attempts since 2007 by Iranian entities linked to Iran's missile programme to acquire test equipment manufactured by German companies; although the equipment was not specifically identified on export control lists, its intended end-use would require that its export be controlled.<sup>68</sup> The cables describe the modus operandi of the Iranian procurement effort: the use of front companies, middlemen and false end-users, re-export by overseas subsidiaries, and shipping via third countries. They also reflect the efforts undertaken by Germany and the USA to counter this activity: action requests, information exchanges in the multilateral export control regimes, 'sensitizing' companies to threats and criminal investigations. Of particular note are references to attempts made by the German Customs Criminological Office (Zollkriminalamt, ZKA) to obtain evidence that intermediaries had knowledge of the equipment's end-use—which would be required for a criminal conviction—and a request by the German Ministry of Foreign Affairs for US permission to release cables to the ZKA in support of its investigation, highlighting the challenges faced by investigators in constructing a criminal case.<sup>69</sup>

Other cables reveal similar non-proliferation relationships and activities with a range of states, including China, France, India and Spain.<sup>70</sup> In 2008

<sup>67</sup> As of 16 Jan. 2011 WikiLeaks had released 2428 of a projected total of 251 287 cables. The cables cited here, many of which were edited by WikiLeaks prior to release, were obtained from the WikiLeaks website, <<http://www.wikileaks.ch/>> or <<http://213.251.145.96/>>.

<sup>68</sup> US Embassy in Berlin, 'Germany requests information concerning Iranian procurement of xxxxxxxxxxxx test chamber', Cable to US State Department, no. 08BERLIN643, 16 May 2008; US Embassy in Berlin, 'Germany requests release of xxxxxxxxxxxx nonpaper to the German Criminal Customs Office (ZKA)', Cable to US State Department, no. 08BERLIN1068, 6 Aug. 2008; US State Department, 'Further scheming by German firm to export test chamber to Iranian ballistic missile program', Cable to US Embassy Berlin, no. 08STATE15220, 14 Feb. 2008; US State Department, 'German test chamber sold by Chinese subsidiary to Iran's DIO', Cable to US Embassy Berlin, no. 09STATE68250, 1 July 2009; and US State Department, 'Iran's SHIG using intermediaries in effort to procure test equipment from German firms', Cable to US Embassy Berlin, no. 09STATE122950, 1 Dec. 2009. The Shahid Hemmat Industrial Group (SHIG), Shahid Bakeri Industrial Group (SBIG) and the Defence Industries Organization (DIO) are all sanctioned entities involved in Iran's missile or nuclear programmes. UN Security Council Resolution 1737, 23 Dec. 2006, annex. See also Iran Watch, 'Iran's suspect entities', [n.d.], <<http://www.iranwatch.org/suspect/enduser-list.asp>>.

<sup>69</sup> US Embassy in Berlin, Cable no. 08BERLIN643 (note 68); and US Embassy in Berlin, Cable no. 08BERLIN1068 (note 68).

<sup>70</sup> US State Department, 'Alerting China to possible missile-related export to Iran', Cable to US Embassy Beijing, no. 10STATE9939, 1 Feb. 2010; US State Department, Cable no. 10STATE10900 (note 56); US State Department, 'Efforts by Iran's SBIG to procure carbon fiber from a company in China', Cable to US Embassy Beijing, no. 10STATE16932, 24 Feb. 2010; US State Department, 'French firm selling infrared detectors to China', Cable to US Embassy Paris, no. 09STATE96222, 16 Sep. 2009; US State Department, 'Following-up with India on the xxxxxxxxxxxx graphite case', Cable to US Embassy New Delhi, no. 08STATE23763, 7 Mar. 2008; US State Department, 'Indian graphite supplier again doing business with intermediary for Iranian missile program', Cable to US

Cheng Jingye, director-general of the Chinese Foreign Ministry's Department of Arms Control, is even quoted as describing the extent of US–Chinese bilateral cooperation on non-proliferation and export control as 'remarkable'.<sup>71</sup>

Diplomatic cables of this nature would normally remain classified for at least a decade—typically up to 25 years—and details of the activities may only come to light if a case results in a prosecution. However, few of the attempted (or successful) exports of non-listed dual-use items that have been detected will result in a prosecution: when authorities become aware of such proliferation attempts they usually lead to what are termed 'disruptions'. Disruptions fall into two categories: (a) warning the exporter that an order may be intended for a prohibited end-use and that they will need to apply for an export licence; and (b) detecting and preventing the attempted export, transit or trans-shipment at a port or airport.

In the United Kingdom—which seems to be the only state that publishes information on this activity—both of these types of disruption are commonly carried out by Her Majesty's Revenue and Customs and the UK Border Agency. Between April 2009 and March 2010 these two agencies undertook 81 disruptions of non-listed dual-use items; in contrast, it is unlikely that more than half of the 115 seizures of strategic exports and sanctioned goods related to listed dual-use items.<sup>72</sup> These figures are illustrative of the nature of procurement from states with well-established export control systems and of the importance of non-listed items to WMD and missile programmes. The British Security Service (MI5) may also alert companies of proliferation concerns regarding a particular shipment or end-user.<sup>73</sup>

## V. Conclusions

Events in 2010 further reinforce the emerging consensus that, while the establishment of an effective licensing and export control system is a neces-

Embassy New Delhi, no. 09STATE53356, 26 May 2009; and US State Department, 'Spanish metal merchant supplies Syrian entities of proliferation concern', Cable to US Embassy Madrid, no. 09STATE4134, 15 Jan. 2009.

<sup>71</sup> US Embassy in Beijing, 'Staffdel Januzzi discusses nonproliferation, Iran, and DPRK with MFA Arms Control Director General', Cable to US State Department, no. 08BEIJING1141, 26 Mar. 2008.

<sup>72</sup> British Foreign and Commonwealth Office and departments for Business, Innovation and Skills, International Development and Defence, *UK Strategic Export Controls Annual Report 2009* (The Stationery Office: London, 27 July 2010), p. 8. When calculating the total number of seizures, the UK includes items on the 'UK's military list and dual use goods under EC Regulation 1334/2000 that require export licences'. See HM Revenue and Customs, *Departmental Report 2009*, Cm 7591 (The Stationery Office: London, July 2009), p. 90. The UK military list includes 'security and para-military goods'. British Department for Business, Innovation and Skills, 'UK military list', Aug. 2010, <<http://www.bis.gov.uk/assets/biscore/eco/docs/control-lists/uk-military-list.pdf>>, p. 5.

<sup>73</sup> British Security Service, 'Counter-proliferation', [n.d.], <<https://www.mi5.gov.uk/output/counter-proliferation.html>>.

sary foundation for countering proliferation, an effective approach also requires other activities. These include (a) prevention, through industry outreach and vigilance; (b) disruption, by dissuading exporting companies or seizing goods; (c) international cooperation, either bilaterally or via multilateral regimes or initiatives; (d) information sharing, whether bilaterally, regionally or via the multilateral regimes; (e) capacity building, both national and international; (f) interception, to impede the movements of proliferation-sensitive items; and (g) targeting proliferation finance.

There are many opportunities for cross-fertilization between these activities. For example, the PSI could look at aspects of the FATF's structure and activity to gain insights into how to expand membership to include key states along proliferation supply chains; develop and introduce international norms for the interdiction of sensitive goods—perhaps by publishing a PSI 'typologies' report and guidance on implementing the interdiction measures in UN Security Council resolutions 1540 and 1929; and introduce a peer review system for building capacity and sharing good practice.

Additionally, lines dividing cooperation with partners from technical assistance programmes are becoming increasingly blurred. New types of partnerships are being formed and technical assistance recipients are becoming partners in both financial and political terms. This development can partly be attributed to a growing recognition that a cooperative peer-based approach is more effective as it increases ownership and sustainability, that all countries have to work together to build capacity and to combat proliferation, and that in the challenging and fast-moving area of strategic trade controls no country has all the answers.

As the modus operandi of procurement networks has adapted to restrictions on the direct export of dual-use items from producing countries, counter-proliferation activities have evolved to include controls on brokering, transit, trans-shipment and finance, which involve countries the full length of the supply chain. As a result, the number of countries and actors potentially involved in, or used for, proliferation activities, and therefore affected by international obligations and resulting national laws, has increased. It is no longer just the exporter that is subject to strategic trade controls but potentially also manufacturers, shippers, traders, freight forwarders, insurers and banks, particularly in relation to recent UN Security Council resolutions.