

Strategic Trade Review

Winter/Spring 2019

Proliferation Trends

Proliferation to and from China Over
Four Decades

Russia Sanctions

Are They Working, Workable, and
Worth It?

Export Control Regimes

Alternative Approaches to
Multilateral Export Control
Cooperation

Japan's CISTEC

Strengthening Export Controls with
a Unique Model

Teaching Export Controls

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to Strategic Trade Careers

08

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Contents

ARTICLES

01—Gradual Signs of Change: Proliferation to and from China over Four Decades

Matthew Godsey and Valerie Lincy 03

02—Sanctions on Russia: Are They Working, Workable, and Worth It?

Stephen Osborne 23

03—The Once and Future Multilateral Export Control Regimes: Innovate or Die

Michael D. Beck and Scott A. Jones 45

PRACTITIONER PERSPECTIVE

04—The Center for Information on Security Trade Controls (CISTEC) Export Control Model of Japan: Role, Utility, and Management

CISTEC 77

COMMENTARY

05—Attracting the Best and Brightest to Strategic Trade Careers

Josh L. Darnell and Joshua N. K. Massey 93

Gradual Signs of Change: Proliferation to and from China over Four Decades

MATTHEW GODSEY AND VALERIE LINCY¹

Abstract

This article examines the role of Chinese state-owned enterprises and private actors in proliferation-related trade both to and from China and how that role has evolved over time.² The evolution is divided into three time periods and illustrated with examples of U.S. sanctions actions and export enforcement cases. The article also considers how regulatory changes to Chinese export control law as well as China's adherence to multilateral control regimes may have influenced this evolution. Has a public posture by the Chinese government that is increasingly supportive of strategic trade controls in the time period considered been reflected in the acquisition policies of state-owned enterprises and in government enforcement actions in response to illicit exports and re-exports by private sector actors? The article's conclusion offers a predictive assessment of how China's export and import policies may evolve in the future in light of the country's proposed new Export Control Law.

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2 The conclusions in this paper are based on open source information, in particular public sanctions notices and U.S. export enforcement cases; thus part of the picture may be missing. Relatedly, the authors acknowledge that sanctions and enforcement cases are often driven by broader bilateral issues. The absence of such actions may not imply the absence of proliferation, just as the imposition of sanctions or pursuit of enforcement cases may not always target all entities involved. In an effort to validate the overall conclusions of this paper and to reflect the U.S. government perspective, the authors interviewed current and former officials from the Departments of Commerce, Justice, and State.

Keywords

China, chemical weapons, export control, illicit trade, missile, nuclear, procurement, proliferation, sanctions, technology transfer, United States

Introduction

The proliferation threat posed by China has been a source of concern for the United States and other countries for several decades. However, the nature of this threat has changed during that time, both in terms of the types of systems and materials being exported and the level of involvement of the Chinese government and state-owned enterprises. This evolution can be traced through U.S. export enforcement and sanctions actions and informed by China's national export control regulations and adherence to multilateral control initiatives.

Following decades of tight control and limited, ideologically-motivated export, the 1980s and early 1990s were years of increasing export and import by newly established, state-directed firms.³ By the mid-1990s, China began seeking to burnish its international image with regard to nonproliferation, which led it to adopt new laws regulating trade and to support multilateral nonproliferation initiatives and regimes. This coincided with economic development in China driven by the expansion of private enterprise. The result was a more entrepreneurial form of proliferation, driven largely by private companies and individuals, with less apparent government involvement.

This evolution has continued since then. A review of recent U.S. export enforcement actions indicates that China remains a top destination for controlled items illegally exported from the United States and a regular source of such items for Iran and other countries of proliferation concern.⁴ In many cases, however, this trade has increasingly been carried out by Chinese nationals operating privately, by front companies set up outside of China, or by unsanctioned institutes or affiliates of state-owned enterprises. While the involvement of state-owned firms has been less overt in recent years, U.S. enforcement actions indicate that these firms continue to enhance their capabilities through this trade. Similarly, while the Chinese government no longer transfers complete strategic systems overseas, it does not actively prevent or punish private entities exporting or re-exporting controlled material and technology abroad. The passive response of the Chinese government to export control violations may evolve in light of

3 The evolutionary phases of China's trade policy notably are described in Jishe Fan, "China Nonproliferation Export Control System: Evolution and Revolution," Belfer Center for Science and International Affairs, Harvard Kennedy School, 2008, <https://www.belfercenter.org/sites/default/files/legacy/files/Jishe_Fan_Export_Control_MTA_Talk.pdf>; Chin-Hao Huang, "Bridging the Gap: Analysis of China's Export Controls against International Standards," United Kingdom Foreign and Commonwealth Office, May 25, 2012, <<https://www.gov.uk/government/publications/analysis-of-chinas-export-controls-against-international-standards/bridging-the-gap-analysis-of-chinas-export-controls-against-international-standards>>; and Evan S. Medeiros, *Reluctant Restraint: The Evolution of China's Nonproliferation Policies and Practices, 1980-2004* (Stanford: Stanford University Press, 2007), pp. 104-108.

4 "Summary of Major U.S. Export Enforcement, Economic Espionage, and Sanctions-related Criminal Cases: January 2015 to the Present," U.S. Department of Justice, January 2018, <<https://www.justice.gov/nsd/page/file/1044446/download>>.

forthcoming changes to China's trade control laws.

This article examines the evolution described above over three periods: the 1980s-1990s, the 2000s, and 2000-2018. It draws upon U.S. export enforcement and sanctions actions to illustrate the changing role of state-owned firms and private entities. The article also considers how new U.S. sanctions tools and changes in China's official nonproliferation policy and national trade laws may have influenced this evolution. Finally, the article considers how China's proposed new Export Control Law might further affect this dynamic, both in terms of the acquisition policies of state-owned enterprises and in government enforcement actions in response to illicit exports and re-exports by private sector actors.

1980s-1990s: Proliferation from China

The 1980s and early 1990s saw some of the most egregious and strategically significant instances of proliferation from China to occur during the three time periods examined here. The government and prominent Chinese state-run enterprises were at the forefront of these sales. In 1988, China supplied 36 Dongfeng-3 (DF-3 or CSS-2) liquid-fueled, intermediate-range ballistic missiles to Saudi Arabia.⁵ The sale was negotiated by Poly Technologies, a firm formed in 1984 through the joint investment of China International Trust and Investment Corporation (CITIC) and the General Armament Department of the People's Liberation Army (PLA).⁶ This was the first time that any country had sold intermediate-range missiles to a country in the Middle East and the first time that China had sold a strategic missile. The DF-3 was used in the Chinese arsenal to deliver nuclear warheads over 1,500 miles. Because of its poor accuracy, the DF-3 was considered suitable mainly for nuclear missions, making it an interesting choice for Saudi Arabia, a country with no known nuclear program; however, the variant sold to Saudi Arabia was reportedly modified to allow it to carry a conventional payload. The sale, which came at a cost of approximately \$3-3.5 billion, included assistance in the construction of two missile bases south of Riyadh, as well as the provision of Chinese military personnel for help with maintenance, operations, and training.⁷

Several key transfers to Pakistan in the 1990s also illustrate this strategy. In 1992, China exported to Pakistan M-11 (DF-11) solid-fueled, short-range ballistic missiles, for which launch vehicles had previously been delivered.⁸ This sale equipped Pakistan with a reliable, nuclear-

5 "China's Reported Ballistic Missile Sale to Saudi Arabia: Background and Potential Implications," U.S.-China Economic and Security Review Commission, June 16, 2014, <https://www.uscc.gov/sites/default/files/Research/Staff%20Report_China%27s%20Reported%20Ballistic%20Missile%20Sale%20to%20Saudi%20Arabia_0.pdf>.

6 Evan S. Medeiros, *Reluctant Restraint: The Evolution of China's Nonproliferation Policies and Practices, 1980-2004* (Stanford: Stanford University Press, 2007), pp. 104-108.

7 "China's Reported Ballistic Missile Sale to Saudi Arabia: Background and Potential Implications," U.S.-China Economic and Security Review Commission, June 16, 2014, <https://www.uscc.gov/sites/default/files/Research/Staff%20Report_China%27s%20Reported%20Ballistic%20Missile%20Sale%20to%20Saudi%20Arabia_0.pdf>.

8 "China and Weapons of Mass Destruction: Implications for the United States," National Intelligence Council, November 1999, <https://www.dni.gov/files/documents/China_WMD_2000.pdf>.

capable delivery system as it was in the midst of developing a nuclear weapon, which it would first test in 1998 (following testing by India). This transfer was made by a now-notorious state-owned missile technology enterprise, China Precision Machinery Import-Export Corporation (CPMIEC), which markets and sells missiles abroad on behalf of other state-owned firms.⁹

Between 1994 and 1995, another state-owned enterprise, China Nuclear Energy Industry Corporation (CNEIC), shipped 5,000 ring magnets to Dr. A.Q. Khan Research Laboratories, a facility in Pakistan not subject to international nuclear safeguards.^{10,11} Ring magnets are a key component used to stabilize centrifuges used in uranium enrichment. Again, the timing of the transfer was critical; Pakistan was actively developing nuclear weapons. The transfer from a subsidiary of China National Nuclear Corporation (CNNC) to the primary research organization working on Pakistan's nuclear weapon program left no doubt that the export was a knowing contribution to Islamabad's accelerating nuclear effort.¹²

For the United States and other concerned governments, the question during this period was not whether China was doing enough to prevent proliferation but how it could be stopped from actively fueling proliferation. There was some debate within the U.S. government about whether sanctions or engagement would be more effective in convincing China to change its behavior, with many in Congress calling for a more forceful response.¹³ Partly in response to this pressure, the U.S. Department of State began imposing sanctions, using Missile Sanctions Laws under the Arms Export Control Act and the Export Administration Act. Sanctions options under these laws include the denial of exports of missile-related equipment or technology and a ban on U.S. government contracts involving such items for at least two years – onerous penalties for major Chinese aerospace firms hoping to engage in commercial space launches and benefit from cooperation with top U.S. aerospace companies.¹⁴

For example, in response to the M-11 transfer, the United States imposed sanctions on CPMIEC and China's Ministry of Aerospace Industry for their roles in arranging the sale.¹⁵ Because of China's status as a "country with a non-market economy that was not a member of the Warsaw Pact," the sanctions applied to all activities of the Chinese government involving missile development or production, or the development or production of electronics, space systems or

9 Evan S. Medeiros and Bates Gill, "Chinese Arms Exports: Policy, Players, and Process," Strategic Studies Institute, August, 2000, pp. 45-47.

10 Shirley A. Kan, "China and Proliferation of Weapons of Mass Destruction and Missiles: Policy Issues," Congressional Research Service, February 26, 2003, <<https://fas.org/asmf/resources/govern/crs-rl31555.pdf>>.

11 "China and Weapons of Mass Destruction: Implications for the United States," National Intelligence Council, November 1999, <https://www.dni.gov/files/documents/China_WMD_2000.pdf>.

12 Ibid.

13 Shirley A. Kan, "China and Proliferation of Weapons of Mass Destruction and Missiles: Policy Issues," Congressional Research Service, January 5, 2015, pp. 49-50, <<https://fas.org/sgp/crs/nuke/RL31555.pdf>>.

14 "State Department Issued Public Notice of MTCR Sanctions Against China," U.S. Department of State, August 26, 1993.

15 Ibid.

equipment, or military aircraft.¹⁶ This stipulation arose from the so-called “Helms Amendment” of the Arms Export Control Act which was intended to prevent a country like China with government-directed enterprises from escaping the impact of sanctions on one or several of these entities.¹⁷ The provision prohibited all U.S. exports to China of equipment or technology controlled by the Missile Technology Control Regime (MTCR) and blocked all U.S. government contracts involving such items, although existing licenses were not revoked. A number of the Ministry’s key subordinates were specifically singled out for sanction, including China National Space Administration, China Aerospace Corporation (CASC), Aviation Industries of China (AVIC), China Great Wall Industries Corporation (CGWIC), Chinese Academy of Space Technology, China Academy of Launch Vehicle Technology (CALT), China Haiying Company, Shanghai Astronautics Industry Bureau, and China Chang Feng Group.¹⁸

1980s-1990s: Illicit U.S. Exports to China

During the 1990s, a number of cases involving illegal transfers of U.S.-origin goods and technology to China arose from collaboration between prominent American firms and their Chinese counterparts in joint ventures and other collaborative projects. Overall, the period was characterized by major lapses in compliance by U.S. companies which were eager to gain a foothold in the emerging Chinese economy. The Chinese companies with which they cooperated were generally state-owned enterprises, making the Chinese government a direct beneficiary of these transactions.

One well-known case concerned Hughes Electronics, a U.S. company involved in developing satellite systems.¹⁹ In the early 1990s, Hughes reached an agreement with several Chinese aerospace organizations, including CGWIC and CALT, which were the launch service provider and the producer of Long March rockets, respectively.²⁰ Both companies were part of the state-owned China Aerospace Corporation (CASC).²¹ The agreement was for the launch of Hughes satellites into orbit from the Xichang Satellite Launch Center in China.²² However, launches in 1992 and 1995/1996 using Long March rockets ended in fiery explosions shortly after lift-off.²³ Hughes was confident that a problem with the rocket’s nose cone was the cause of the failures, and inquired with the U.S. Department of State’s Office of Defense Trade Controls as to whether

16 Ibid.

17 Shirley A. Kan, “China and Proliferation of Weapons of Mass Destruction and Missiles: Policy Issues,” Congressional Research Service, January 5, 2015, pp. 55-56, <<https://fas.org/sgp/crs/nuke/RL31555.pdf>>.

18 Ibid.

19 “Satellite Launches in the PRC: Hughes,” Cox Report, 1999, p. 2, <<https://china.usc.edu/sites/default/files/legacy/AppImages/ch5.pdf>>.

20 Ibid., pp. 2, 37.

21 “Company Profile,” China Aerospace Science and Technology Corporation, <<http://english.spacechina.com/n16421/n17138/n17229/c127066/content.html>>.

22 “Satellite Launches in the PRC: Hughes,” Cox Report, 1999, p. 10, <<https://china.usc.edu/sites/default/files/legacy/AppImages/ch5.pdf>>.

23 Ibid., p. 2.

a license was likely to be approved to allow technical discussions with the Chinese side that might help resolve the design flaw.²⁴ They were informed that a license almost certainly would not be granted, due to the possibility that the assistance could ultimately aid in the development of China's ballistic missiles.²⁵ Nevertheless, Hughes, without applying for a license, carried out a launch failure investigation and provided guidance on telemetry, payload analysis, testing, and simulation to its Chinese counterparts.²⁶ The violations, once uncovered, ultimately led to a \$32 million USD fine (charged against both Hughes and Boeing, which had purchased Hughes).²⁷

Another prominent case involved China National Aero-Technology Import-Export Corporation (CATIC), a state-owned defense enterprise. CATIC and McDonnell Douglas had entered into an agreement to jointly produce civilian airliners at a number of factories overseen by CATIC's parent, Aviation Industries of China (AVIC). As part of the agreement, McDonnell Douglas transferred machine tools that had been used to produce B-1 strategic bombers.²⁸ The tools were approved for export only to be used in the production of civilian aircraft. However, the machine tools were transferred to companies under AVIC that were involved in military projects, including to Nanchang Aircraft Manufacturing Company.²⁹ Nanchang was involved in the production of fighter aircraft and anti-ship cruise missiles.³⁰ According to a 1995 U.S. Department of Commerce investigation, three Chinese firms "knowingly violated" U.S. export regulations by diverting the machine tools. These state-owned firms were CATIC, China National Aero-Technology, and China National Supply and Marketing Corporation.³¹ The equipment was eventually returned to an approved site in Shanghai.³² Still, the diversion led to the indictment, in 1999, of McDonnell Douglas, CATIC, and several employees from both firms. CATIC ultimately agreed to pay \$2.3 million USD to settle the charges, which it made through TAL Industries, its California-based subsidiary.³³ McDonnell Douglas eventually paid

24 Ibid., pp. 29-30.

25 Ibid., pp. 18-20.

26 Ibid., pp. 82-84.

27 "U.S. Department of State Reaches Settlement with Boeing and Hughes," U.S. Department of State, March 5, 2003, <<https://2001-2009.state.gov/r/pa/prs/ps/2003/18275.htm>>.

28 "U.S. China Commission Export Controls and China," U.S. China Commission, January 17, 2002, p. 1069, <<https://www.uscc.gov/sites/default/files/transcripts/1.17.02HT.pdf>>.

29 "Action Affecting Export Privileges; TAL Industries, Inc.," U.S. Department of Commerce, Bureau of Export Administration, Federal Register Vol. 66, No. 100, May 23, 2001, <<https://www.gpo.gov/fdsys/pkg/FR-2001-05-23/pdf/01-13024.pdf>>.

30 Dennis M. Gormley, Andrew S. Erickson, and Jingdong Yuan, "A Potent Vector: Assessing Chinese Cruise Missile Development," *Joint Forces Quarterly*, Issue 75 (2014), p. 100.

31 "Iran and Proliferation: Is the U.S. Doing Enough?," Hearings before the Subcommittee on Near Eastern and South Asian Affairs of the Committee on Foreign Relations, April 17 and May 7, 1997, <<https://www.gpo.gov/fdsys/pkg/CHRG-105shrg40187/html/CHRG-105shrg40187.htm>>.

32 "Manufacturing Processes," Cox Report, 1999, p. 81, <<https://china.usc.edu/sites/default/files/legacy/AppImages/ch10.pdf>>.

33 "Action Affecting Export Privileges; TAL Industries, Inc.," U.S. Department of Commerce, Bureau of Export Administration, Federal Register Vol. 66, No. 100, May 23, 2001, <<https://www.gpo.gov/fdsys/pkg/FR-2001-05-23/pdf/01-13024.pdf>>.

\$2.1 million USD to settle civil charges, but criminal charges were dismissed.³⁴

2000s: Proliferation from China

Proliferation by Chinese state-owned firms continued during the 2000s as reflected in U.S. sanctions actions. However, these transfers did not involve nuclear-capable delivery systems or critical nuclear technology, as had been the case during the previous decade. A review of U.S. sanctions during this period also reveals the emerging contribution of Chinese private enterprise: approximately one third of the nearly 100 Chinese entities sanctioned by the United States for proliferation were privately-owned.³⁵ This contrasts with the 1990s when only a handful of firms were sanctioned – all state-owned – in addition to some individuals.

Both state-owned and private firms often were sanctioned repeatedly by the U.S. State Department, notably under the new Iran Nonproliferation Act of 2000 (INA) for the sale of missile- and chemical-related equipment and technology to Iran.³⁶ For example, state-owned firms including China North Industries Corporation (Norinco), CGWIC, and CPMIEC were sanctioned multiple times under INA throughout the decade.³⁷ Private firms were also targeted repeatedly, with little apparent effect on their export practices. These companies included Beijing Alite Technologies Co., Zibo Chemet Equipment Co., and Wha Cheong Tai Co, among others. For example, Wha Cheong Tai was sanctioned four times between 2002 and 2004 under the INA; and Zibo Chemet five times under INA (later INKSNA to include Syria in 2005³⁸ and North Korea in 2006³⁹) between 2004 and 2010.⁴⁰

Yet, with a few exceptions, the sanctions under INA/ INKSNA did not appear to deter these new private actors.⁴¹ While neither Norinco nor CGWIC, for example, were sanctioned again

34 Bill Miller, “McDonnell Douglas to Pay \$2.1 Million Fine in Export Case,” *Washington Post*, November 15, 2001.

35 Sanctions authorities captured in this calculation include INA/ISNA/INKSNA, Iran-Iraq Nonproliferation Act of 1992, Chemical and Biological Sanctions Laws, Missile Sanctions Laws, and Executive Orders 12938 and 13382; the authors prepared a table of all Chinese entities sanctioned under these authorities between 1991 and the present to compare patterns of sanctions among the periods examined in this paper.

36 “Complete List of Sanctioned Entities,” U.S. Department of State, <<https://www.state.gov/documents/organization/284359.pdf>>; Shirley A. Kan, “China and Proliferation of Weapons of Mass Destruction and Missiles: Policy Issues,” Congressional Research Service, March 6, 2008, pp. 16-17, <www.dtic.mil/gettr-doc/pdf?AD=ADA493146>.

37 “Complete List of Sanctioned Entities,” U.S. Department of State, <<https://www.state.gov/documents/organization/284359.pdf>>.

38 “Iran and Syria Nonproliferation Act,” U.S. Department of State, November 22, 2005, <<https://www.state.gov/t/isn/c20760.htm>>.

39 “Iran, North Korea, and Syria Nonproliferation Act: Imposed Sanctions,” October 13, 2006, <<https://www.state.gov/t/isn/inksna/c28836.htm>>.

40 “Complete List of Sanctioned Entities,” U.S. Department of State, accessed September 1, 2018, <<https://www.state.gov/documents/organization/284359.pdf>>.

41 Campion Walsh and Murray Hebert, “U.S. Sanctions China Firms for Iranian Arms Sales,” *The Wall Street Journal*, July 7, 2003.

after 2006, Wha Cheong Tai was involved in negotiations to supply phosphate production line equipment to Iran in 2011, and was again sanctioned by the State Department in 2014, suggesting that the sanctions never dissuaded it from doing business with Iran.⁴² Nor does it appear that these private firms were pressured to change their behavior by the Chinese government in response to U.S. sanctions. The government's public response was generally the same whenever U.S. sanctions were imposed on Chinese entities: a staunch denial that any transaction of concern had taken place, followed by a demand to see any evidence proving that it had.⁴³

In part in response to these repeated violations, the United States expanded its sanctions arsenal to include new authorities that provided a more economically impactful range of penalties. INA/INKSNA penalties were limited to a ban on U.S. government assistance, on the sale of U.S. Munitions List items, and on U.S. government procurement, as well as the denial of licensed U.S. dual-use exports and the suspension of all such existing licenses.⁴⁴ These penalties were more meaningful for major Chinese firms dependent on U.S. technology and concerned about the reputational damage of sanctions than for private firms with little U.S. trade and no real public profile.

The 2005 Executive Order 13382 Blocking Property of Weapons of Mass Destruction Proliferators and Their Supporters built on the existing Executive Order 12938, enabling the prohibition of imports into the United States from companies sanctioned for proliferation. It authorizes the United States to block all assets and property in the country held by certain "specially designated nationals."⁴⁵ Perhaps most significantly, E.O. 13382 requires U.S. banks to block funds from moving through the U.S. financial system to or from a designated entity, making it possible to restrict the activities of companies in third countries with no assets or presence in the United States, since nearly all payments made in U.S. dollars ultimately pass through a U.S. bank.⁴⁶ In contrast to the sanctions available under INA/INKSNA, the financial penalties under E.O. 13382 are more potentially damaging to firms that do not trade within the United States but that do business with U.S. persons or through U.S. banks.

Another key enforcement development during this decade came from the Commerce Department which began to more actively penalize companies and individuals for violating the Export Administration Regulations (EAR). Commerce expanded the use of its "Entity List" which identifies companies around the world that are subject to heightened license requirements for

42 "Complete List of Sanctioned Entities," U.S. Department of State, <<https://www.state.gov/documents/organization/284359.pdf>>.

43 "Chinese Firms Punished over Iran," *BBC News*, January 18, 2005; and "China Denies Military Expansion 'Inevitable'," *CNN*, September 5, 2001.

44 "Iran, North Korea, and Syria Nonproliferation Act Sanctions," U.S. Department of State, January 24, 2017, <<https://www.state.gov/r/pa/prs/ps/2017/03/269084.htm>>.

45 "Executive Order 13382, "Blocking Property of Weapons of Mass Destruction Proliferators and Their Supporters," Office of Foreign Assets Control, <<https://www.treasury.gov/resource-center/sanctions/Programs/Documents/wmd.pdf>>.

46 Ibid.

receiving controlled goods, often with a “presumption of denial.”⁴⁷ In 2007, the reasons for inclusion on the list were expanded to include entities involved in activities “contrary to the national security or foreign policy interests of the United States.”⁴⁸ This broadened definition allowed Commerce to list not only entities involved in WMD-related proliferation, but also those linked to other actions, such as the procurement of military components.⁴⁹ At the same time, there was a push in Congress to amend the International Emergency Economic Powers Act (IEEPA) to allow for greater monetary penalties for each export violation.⁵⁰ In 2006, the maximum civil fine for a violation of the EAR increased from \$11,000 to \$50,000 USD per violation.⁵¹ In 2007, the maximum fine increased again to \$250,000 USD or twice the value of the transaction, whichever is greater. Maximum monetary criminal penalties increased from \$50,000 to \$1 million USD.⁵²

2000s: Illicit U.S. Exports to China

The 2000s saw far fewer cases of well-established U.S. firms committing export violations with prominent Chinese partners. Instead, there was a sharp increase in the number of export violations by small U.S.-based companies run by Chinese nationals. These small firms did little or no business outside of exports to China, and sometimes dealt with a sole customer. Chinese state-owned enterprises were commonly the end-users and appeared to be involved in tasking individuals involved in the conspiracies to procure certain items.

Several cases that illustrate this evolution involve China Electronics Technology Corporation (CETC), a large state-owned conglomerate that oversees dozens of subsidiaries and research institutes developing both civilian and military electronics.⁵³ Some of its institutes develop components used in ballistic missiles and conduct research on detecting and intercepting inbound missiles. It was formerly the Ministry of Information Industry.

47 “Entity List FAQs,” U.S. Department of Commerce, <https://www.bis.doc.gov/index.php/licensing/embassy-faq/faq/127-can-i-export-to-a-person-on-the-entity-list-if-he-she-is-not-located-at-the-same-address-as-listed-in-the-ear#faq_120>.

48 “Authorization To Impose License Requirements for Exports or Reexports to Entities Acting Contrary to the National Security or Foreign Policy Interests of the United States,” U.S. Department of Commerce, Federal Register, June 5, 2007, <<https://www.federalregister.gov/documents/2007/06/05/E7-10788/authorization-to-impose-license-requirements-for-exports-or-reexports-to-entities-acting-contrary-to>>.

49 “Addition of Certain Persons to the Entity List; Removal of General Order From the Export Administration Regulations (EAR),” United States Department of Commerce, Bureau of Industry and Security, September 22, 2008.

50 “Export Control Enforcement: What to Expect (and What Not to Expect) During the Obama Administration,” *Jones Day*, June 2010.

51 Ibid.

52 Ibid.

53 “Group Introduction,” China Electronics Technology Group Corporation, <http://www.cetc.com.cn/zgdzkj/_300891/_300895/index.html>.

Universal Technologies, a firm based in Mount Laurel, New Jersey, worked to procure digital-to-analog converters, random access memory chips, and digital signal processors for CETC. Universal Technologies was run by Teng Fang Li and Nei-Chien Chu, a husband-and-wife team. They supplied these components to two institutes under CETC, the 14th Institute and the 20th Institute, both of which were involved in the development of military electronics and conducted research on ballistic missiles.^{54,55} The pair received at least \$724,000 USD for making these shipments. They were subjected to a 20-year denial of export privileges and a \$120,000 USD fine, but avoided any jail time.⁵⁶

Another export violation involving CETC was carried out by a second company in Mount Laurel, New Jersey: Manten Electronics. In this case, two couples ran the company in cooperation. Between 2002 and 2004, Manten shipped controlled Gallium Arsenide (GaAs) Monolithic Microwave Integrated Circuits, which can be used in radar, electronic warfare, and communications systems, to the CETC's 20th and 41st Institutes.⁵⁷ To carry out the shipments, Xu Weibo, who masterminded the operation, established a shell company in New Jersey known as General Microwave Corporation to act as a false end-user to receive the components. The items would then be repackaged before they were sent on to China without required export licenses. The conspirators did receive time in jail for their offenses: Xu Weibo received a term of 44 months in prison, while his wife, Xiu Ling Chen, was sentenced to 18 months.⁵⁸

In yet another case involving CETC, a company based in Ontario, California called General Technology Systems Integration Corporation carried out a scheme in 2009 to illegally provide design and production technology for analog-to-digital converters to CETC's 24th Institute, which, among other things, conducts research on circuits used in military systems.⁵⁹ The company was run by a husband and wife, York Yuan Chang and Leping Huang, respectively, who recruited two U.S.-based engineers to provide training to 24th Institute personnel, in

54 Zhu Li, Wang Shengli, Yu Li, "The Simulation of Radar System for Predicting the Impact Point of Ballistic Missile," *Modern Defence Technology*, Vol. 28, No. 3 (2000), pp. 57-62, in the China Aerospace Database 2002, Record Number 32419; and Enterprise Introduction, China Electronics Technology Group Corporation 14th Research Institute, <<http://14.cetc.com.cn/14/338552/338540/index.html>>.

55 Chen Jun, Wang Jinsheng, Zhang Xiushe, Gao Xiaoguang, and Wang Xiaojun, "Model of Killing Zone for Vertical Launching Ship-to-air Missile Based on Trajectory Simulation," *Fire Control & Command Control*, Issue 5 (2015); and "Xi'an Research Institute of Navigation Technology (China Electronics Technology Group Corporation 20th Research Institute," August 2018, <<http://www.yingjiesheng.com/job-003-861-962.html>>.

56 Indictment, "United States of America v. Terry Tengfang Li and Nei-Chien Chu," United States District Court, District of New Jersey, July 28, 2004; "Order Relating to Terry Teng Fang Li," U.S. Department of Commerce, Bureau of Industry and Security, June 19, 2006.

57 United States v. Weibo Xu, United States District Court, District of New Jersey, September 13, 2005.

58 "Four Owners/Operators of New Jersey Company Admit Illegally Selling National-Security Sensitive Items to Chinese Interests," News Release, United States Attorney's Office, District of New Jersey, September 13, 2005.

59 "Order Relating to General Technology Systems Integration Corporation, In the Matter of: General Technology Systems Integration Corporation," United States Department of Commerce, Bureau of Industry and Security, June 12, 2012, p. 2, <<https://efoia.bis.doc.gov/index.php/documents/export-violations/export-violations-2012/781-e2271/file>>.

violation of U.S. export regulations. The pair was charged a civil penalty of \$300,000 USD.⁶⁰

2010-2018: Proliferation from China

The proliferation risk from China during the current decade is dramatically different from what took place during the 1980s and 1990s. Publicly-documented transfers of concern are predominately carried out by small, private enterprises and individuals, with no clear government involvement. These actors are able to exploit the expanding Chinese industrial base which produces an increasing range of dual-use items and which is more easily able to import such sensitive items from elsewhere. They employ a range of evasive tactics, including the use of multiple front companies, sometimes in multiple jurisdictions, and circuitous methods of transferring both goods and funds. In many cases, these individuals are able to conduct all aspects of their business without meeting their suppliers or customers in person or entering a territory where they might be subject to arrest, making enforcement difficult.

Karl Lee (also known as Li Fang Wei) personifies this trend. Lee, a businessman operating out of Dalian, China, became notorious for being behind a string of sales, beginning in the late 2000s, made directly to ballistic missile developers in Iran. Using a cluster of China-based front companies, Lee shipped gyroscopes, accelerometers, high-strength alloys, graphite cylinders, and other items to Shahid Bagheri Industrial Group (SBIG), an organization responsible for Iran's solid-fueled ballistic missile program. Lee has been sanctioned repeatedly by the State Department – eleven times since 2010, most recently on April 30, 2018.⁶¹ He was indicted in New York in 2009 and again in 2014 for making transfers through U.S. banks in connection with his illicit transactions, effectively using the U.S. financial system to facilitate his proliferation efforts.^{62,63} Yet despite the sanctions and indictments, the Chinese government does not appear to have applied any pressure to Lee to cease his trade with Iran. And Lee has never come within U.S. custody, despite a \$5 million USD reward offered by the State Department for information leading to his arrest and/or conviction.⁶⁴ A recent study suggests that Lee remains active in Dalian, China, assisted by family members in the operation of his network of front companies.⁶⁵

60 Ibid.

61 “Complete List of Sanctioned Entities,” U.S. Department of State, <<https://www.state.gov/documents/organization/284359.pdf>>.

62 Indictment, *The People of the State of New York v. Li Fang Wei et. al.*, Supreme Court of the State of New York, County of New York, April 7, 2009, p. 3, <<http://manhattanda.org/whatsnew/press/2009-04-07/Indictment%20LFW%20and%20Limmt%20%20FINAL.pdf>>.

63 “Karl Lee Charged in Manhattan Federal Court with Using a Web of Front Companies to Evade U.S. Sanctions,” Federal Bureau of Investigation, Office of Public Affairs, April 29, 2014, <<https://www.fbi.gov/contact-us/field-offices/newyork/news/press-releases/karl-lee-charged-in-manhattan-federal-court-with-using-a-web-of-front-companies-to-evade-u.s.-sanctions>>.

64 “Wanted by the FBI - Li Fangwei,” Federal Bureau of Investigation, <<https://www.fbi.gov/wanted/counterintelligence/li-fangwei>>.

65 Daniel Liu, “Karl Lee, Where is He Now?,” Project Alpha, King's College London, October 26, 2018, <<https://projectalpha.eu/wp-content/uploads/sites/21/2018/10/Report-Karl-Lee-where-is-he-now-final.pdf>>.

Sihai Cheng is another individual determined to export controlled goods to a program of proliferation concern. From 2005 through 2012, working in cooperation with an Iranian national, Cheng supplied thousands of items to an Iranian firm involved in the country's uranium enrichment program.⁶⁶ Some of these items were of Chinese origin and included titanium sheets and tubes, seamless steel tubes, pressure valves, bellows, and flanges. Cheng also managed to procure hundreds of U.S.-origin pressure transducers, a component that is essential for the operation of centrifuges used in uranium enrichment.⁶⁷ Cooperating with employees at a China-based subsidiary of a leading U.S. manufacturer of pressure transducers, Cheng was able to use front companies in China to act as false end-users for the exports. He then re-routed the shipments to Iran upon their arrival in China.⁶⁸ This scheme, which went on for at least seven years, only came to an end when Cheng was arrested in London in 2014 and was extradited to the United States for trial, where he was sentenced to nine years in prison.⁶⁹

These cases illustrate how individuals operating in China are able to tap into the country's increasingly sophisticated industrial base and business networks to supply controlled materials and components to programs of concern. The items these individuals supply are often manufactured in China, but they may also be products of U.S. or European origin that were procured for the purposes of illicit diversion to a third party, making use of unscrupulous or unwitting freight forwarders, as well as front companies to make and receive payments. In contrast to cases of proliferation that occurred in the 1980s and 1990s, many recent illicit transfers, such as those carried out by Cheng and Lee, have taken place with no apparent involvement of state-owned enterprises.

2010-2018: Illicit U.S. Exports to China

During the current decade, information technology has made it possible for export control violations to be conducted mostly or entirely beyond U.S. borders. This trend is fueled by the ability to identify manufacturers and brokers remotely, to make payments online, to communicate securely with other parties, and to use front companies to mask the ultimate end-user. Enforcement has also become more challenging, with some arrests occurring only after suspects traveled (or were lured) to locations under U.S. jurisdiction, such as Saipan or Guam, or to countries that have extradition treaties with the United States. In many cases, large state-owned Chinese enterprises remain the beneficiaries of these illicit transactions, although they may rely on procurement agents or firms in an effort to mask their involvement.

66 "Chinese National Detained in United Kingdom for Illegally Exporting U.S. Manufactured Parts with Nuclear Applications," News Release, U.S. Immigration and Customs Enforcement, U.S. Department of Homeland Security, April 4, 2014, <<http://www.ice.gov/news/releases/1404/140404washingtondc.htm>>.

67 Ibid.

68 Ibid.

69 "Extradited Chinese National Sentenced to Nine Years for Providing U.S. Goods to Iran to Support its Nuclear Program," U.S. Attorney's Office for the District of Massachusetts, January 27, 2016, <<https://www.justice.gov/usao-ma/pr/extradited-chinese-national-sentenced-nine-years-providing-us-goods-iran-support-its>>.

The case of Chinese national Ming Suan Zhang provides an example of this trend. Zhang, based in China, headed an effort to procure Toray carbon fiber, a material with both aerospace and nuclear applications.⁷⁰ Conspiring with accomplices in Taiwan, Zhang arranged for the shipment to be mislabeled as destined for Taiwan to avoid an export license requirement. The material was shipped from the United States to China, via a third country. In the end, Zhang was arrested by U.S. authorities in the Northern Mariana Islands and was sentenced to 57 months in prison.⁷¹ In his indictment, it emerged that the procurement was made on behalf of Norinco for use in a prototype of a new fighter jet for the Chinese air force.⁷²

Another illustrative case involves Hong Wei Xian, a Chinese national who was arrested in 2010 for attempting to procure, on behalf of CASC, more than 1,000 radiation-hardened programmable read-only memory (PROM) microchips designed to withstand space-based conditions.⁷³ Hong operated his own company, Beijing Starcreates Space Science and Technology Development Company Limited which based much of its business on importing these microchips to supply CASC. He was assisted in the conspiracy by Li Li, vice president of Starcreates. In order to evade detection, Hong requested that a Virginia-based supplier send the components in smaller quantities to several third countries, where they would be transhipped for ultimate delivery to China. Both Hong and Li were arrested in Hungary pursuant to a U.S. arrest warrant and in 2011 both pleaded guilty to conspiracy to violate the AECA and were sentenced to two years in prison.⁷⁴

In a recent case, Shuren Qin, a Chinese national and U.S. permanent resident, was indicted in June 2018 for conspiracy to commit export violations by exporting shipments of hydrophones to Northwestern Polytechnical University (NPU), a state-run military institute that is involved in research on ballistic missiles as well as a range of other military technologies.⁷⁵ Qin had established a company in Qingdao called LinkOcean Technologies that would act as the false end-user for some of the equipment bound for NPU, and also established a company

70 “Chinese National Sentenced To 57 Months’ Incarceration For Attempting To Illegally Export Aerospace-Grade Carbon Fiber,” U.S. Department of Justice, December 10, 2013, <<https://www.justice.gov/usao-edny/pr/chinese-national-sentenced-57-months-incarceration-attempting-illegally-export>>.

71 “Criminal Complaint and Affidavit in Support of Arrest Warrant, United States of America v. Ming Suan Zhang,” Case Number 1:12-mj-00829-CLP, U.S. District Court, Eastern District of New York, September 7, 2012.

72 “Criminal Complaint and Affidavit in Support of Arrest Warrant, United States of America v. Ming Suan Zhang,” Case Number 1:12-mj-00829-CLP, U.S. District Court, Eastern District of New York, September 7, 2012; Sentencing Memorandum, United States v. Ming Suan Zhang, Criminal Number 12-666 (NGG), U.S. Department of Justice, United States Attorney, Eastern District of New York, December 5, 2013, available as Case No. 1:12-cr-00666-NGG.

73 Indictment, “United States of America v. Hong Wei Xian aka “Harry Zan” and Li Li aka “Lea Li,”” Case No. 1:10-cr-00207-GBL, United States District Court, Eastern District of Virginia, pp. 5, 6, 7.

74 “Two Chinese nationals pleaded guilty to illegally attempting to export radiation-hardened microchips to the PRC,” U.S. Immigration and Customs Enforcement, May 31, 2011, <<https://www.ice.gov/news/releases/2-chinese-nationals-charged-illegally-attempting-export-military-satellite-components>>.

75 Indictment, “United States of America v. Shuren Qin, Linkocean Technologies, Ltd., and Northwestern Polytechnical University,” Case No. 18-cr-10205, U.S. District Court, District of Massachusetts, June 26, 2018, pp. 2-3.

called Oceantime, Inc. in Massachusetts, of which his wife, Zongyan Han, was secretary and treasurer.⁷⁶ During the roughly five years before his arrest, Qin exported a range of naval-related items to China, including remotely-operated side scan sonar systems, unmanned underwater vehicles, unmanned surface vehicles, and robotic boats.⁷⁷ Qin allegedly received tasking from both NPU and other entities linked to the People's Liberation Army (PLA) on items to procure that had applications in anti-submarine warfare.⁷⁸

During this period, Chinese state-run firms also stepped up other avenues for U.S. technology and knowledge acquisition, such as placing individuals at U.S. research universities or defense contractors. These individuals then are able to gain access to and expertise in technologies that would be controlled for export to China. State-owned institutes and companies have also worked to gain access to U.S. technology by acquiring minority stakes in U.S. firms. However, the August 2018 Foreign Investment Risk Review Modernization Act (FIRRMA), which permits blocking foreign, non-controlling investments in U.S. businesses linked to critical infrastructure or technology, may hamper this means of acquisition.⁷⁹

China's Adherence to and Enforcement of Nonproliferation Rules

Since the early 1990s, China has increasingly observed international non-proliferation norms and multilateral export control regimes, for instance by ratifying the Nuclear Nonproliferation Treaty in 1992, joining the Zangger Committee in 1997, and joining the Nuclear Suppliers Group (NSG) in 2004.^{80,81,82} Alongside these actions, China has formalized and expanded its national export control laws to reflect these norms and regimes. While Beijing's formal application to join the Missile Technology Control Regime in 2004 was rejected, the government

76 "Oceantime Inc. Articles of Organization," Corporations Division, Commonwealth of Massachusetts, January 19, 2018, <<http://corp.sec.state.ma.us/CorpWeb/CorpSearch/CorpSearchViewPDF.aspx>>; "Shuren Qin's Motion for Pretrial Release on Conditions," United States of America v. Shuren Qin, Case No. 18-cr-10205, U.S. District Court, District of Massachusetts, June 21, 2018, p. 5.

77 "Affidavit of Special Agent Jon Bentsen," United States of America v. Shuren Qin, Case No. 18-cr-10205, U.S. District Court, District of Massachusetts, June 21, 2018, pp. 16-17.

78 "Chinese National Arrested for Conspiring to Illegally Export U.S. Origin Goods Used in Anti-Submarine Warfare to China," U.S. Department of Justice, June 21, 2018, <<https://www.justice.gov/usao-ma/pr/chinese-national-arrested-conspiring-illegally-export-us-origin-goods-used-anti-submarine>>.

79 Ronald A. Oleynik, Antonia I. Tzinova, Seth M.M. Stodder, and Libby Bloxom, "FIRRMA Expands CFIUS Jurisdiction in Two Major Ways," Holland & Knight, August 16, 2018, <<https://www.hklaw.com/publications/FIRRMA-Expands-CFIUS-Jurisdiction-in-2-Major-Ways-08-16-2018/>>.

80 "Timeline of the Nuclear Nonproliferation Treaty (NPT)," Arms Control Association, February 2018, <<https://www.armscontrol.org/factsheets/Timeline-of-the-Treaty-on-the-Non-Proliferation-of-Nuclear-Weapons-NPT>>.

81 "Zangger Committee," Permanent Mission of the People's Republic of China to the United Nations Office in Geneva and other International Organizations in Switzerland, April 16, 2004, <<http://www.china-un.ch/eng/cjjk/cjjblc/cjlc/t85356.htm>>.

82 "China Enters the Nuclear Suppliers Group: Positive Steps in the Global Campaign against Nuclear Weapons Proliferation," Nuclear Threat Initiative, November 1, 2004, <<https://www.nti.org/analysis/articles/china-enters-nuclear-suppliers-group/>>.

nevertheless committed to adjust its missile technology control lists to match those of the MTCR.⁸³ China has also held discussions with the Wassenaar Arrangement and has aligned itself with the group's controls.⁸⁴

In some cases, U.S. sanctions on Chinese state enterprises may have encouraged such steps. In 1994, for example, China pledged to abide by the guidelines of the MTCR, only a year after the United States imposed heavy sanctions on China's aerospace industry for Beijing's sale of M-11 missiles to Pakistan.⁸⁵ After being sanctioned seven times by the State Department in the early 2000s for sales of missile technology to Iran, Norinco used its website to promote its internal compliance program and a statement of its commitment to nonproliferation.⁸⁶ The increasing use by the United States of financial blocking sanctions may also have had a deterrent effect. For instance, since 2010, nearly all sanctions imposed on Chinese firms under E.O. 13382 have targeted private entities.⁸⁷ More broadly, of the nearly 100 Chinese entities sanctioned by the United States between 2010 and 2018, only six were state-owned enterprises – a sharp contrast with previous decades.⁸⁸

While the export practices of state-owned enterprises appear to have improved, those of private firms and individuals have not. The Chinese government's response to these violations is difficult to assess because public examples of export enforcement are rare.

In May 2004, China's Ministry of Commerce (MOFCOM) announced that it had penalized two Chinese companies for violating the "Regulations of the People's Republic of China on Export Control of Missiles and Missile-related Items and Technologies."⁸⁹ MOFCOM did not publish the names of the companies, but reported that one is a trading company based in Jiangsu Province and the other a chemical company based in Shandong Province.⁹⁰ The two companies

83 Chin-Hao Huang, "Bridging the Gap: Analysis of China's Export Controls against International Standards," U.K. Foreign & Commonwealth Office, May 25, 2012, <<https://www.gov.uk/government/publications/analysis-of-chinas-export-controls-against-international-standards/bridging-the-gap-analysis-of-chinas-export-controls-against-international-standards>>.

84 "Expanding and Sustaining Dialogue between China and the Wassenaar Arrangement," Saferworld, January 2015, <<https://www.saferworld.org.uk/resources/publications/873-expanding-and-sustaining-dialogue-between-china-and-the-wassenaar-arrangement>>.

85 Howard Diamond, "House Seeks to Limit Space Cooperation with China," *Arms Control Today*, May 1998, <<https://www.armscontrol.org/print/352>>.

86 "NORINCO Corporate Statement on Nonproliferation, Export Control, and Internal Compliance," China North Industries Corporation, <<http://www.norinco.com/GB/61/99/101/283.html>>.

87 "Complete List of Sanctioned Entities," U.S. Department of State, accessed September 1, 2018, <<https://www.state.gov/documents/organization/284359.pdf>>.

88 Sanctions table described in footnote 32; *Ibid.*

89 Stephanie Lieggi, "From Proliferator to Model Citizen?: China's Recent Enforcement of Nonproliferation-Related Trade Controls and Its Potential Positive Impact in the Region," *Strategic Studies Quarterly* (2010), <<http://www.dtic.mil/dtic/tr/fulltext/u2/a520787.pdf>>; and "Two Chinese Companies Fined for Violating Regulations on Missile Export Control," Embassy of the People's Republic of China in Australia, May 26, 2004, <<http://au.china-embassy.org/eng/xw/t118537.htm>>.

90 *Ibid.*

were reportedly given fines totaling in the millions of yuan.⁹¹ This action came at a time when U.S. officials were reportedly actively urging Chinese authorities to be more transparent about their enforcement actions both as a way to demonstrate seriousness in combatting proliferation to the world and as a deterrent to other Chinese companies involved in the activity.⁹²

Over the next several years, Chinese authorities publicized export enforcement cases in greater detail, including, for the first time, the name of the offending company, as well as specifics about the transaction, such as the nature of the goods involved and the penalties levied. For example, in May 2006, MOFCOM announced that Jilin Tumen Light Chemical Manufacturing Company had attempted to export ten metric tons of sodium cyanide in 2004 without a permit.⁹³ The shipment was interdicted in Jilin Province near ports of entry that are used for trade between China and North Korea. Sodium cyanide is a precursor for hydrogen cyanide, an agent believed to be part of Pyongyang's chemical weapons arsenal. The interdiction reportedly took place after Chinese authorities received a tip from a U.S. intelligence source about the planned shipment. The company was charged a fine of approximately \$6,250 USD.⁹⁴

In 2007, an amendment to a regulation governing customs inquiries made it possible for an on-site customs official to raise questions during cargo inspection about whether an item or technology is controlled, no matter the nature of the item, and allowed these officials to require the exporter to apply to MOFCOM for certification of the goods. This enhanced authority has reportedly led to more suspicious cargoes being halted prior to export.⁹⁵

In 2008, Shanghai Smart Chemicals Co., Ltd. was penalized for falsely identifying potassium bifluoride as potassium borofluoride, despite having knowledge that potassium bifluoride was covered by China's "Measures on Export Control of Certain Chemicals and Related Equipment and Technologies," and thereby subject to an export license requirement.⁹⁶ The company was charged a small fine of approximately \$1,500 USD and also lost its export privileges for shipments involving sensitive materials for a period of two years. The chemical, which was intercepted at the port of Shanghai, can be used in the production of sarin, and was believed to be bound for Iran. This action by Chinese authorities was reportedly taken after receiving a tip

91 Ibid.

92 Ibid.

93 "Jilin Province Punishes Company for Sodium Cyanide Export Violation," Export Control, Chinese Ministry of Commerce, <<http://exportcontrol.mofcom.gov.cn/aarticle/ar/200605/20060502297099.html>>.

94 Stephanie Lieggi, "From Proliferator to Model Citizen?: China's Recent Enforcement of Nonproliferation-Related Trade Controls and Its Potential Positive Impact in the Region," *Strategic Studies Quarterly*, 2010, <<http://www.dtic.mil/dtic/tr/fulltext/u2/a520787.pdf>>.

95 Xiaoming Liu, "Upgrading to a New, Rigorous System: Recent Developments in China's Export Controls," Royal United Services Institute, March 2016, p. 4.

96 "Shanghai Customs Penalizes Shanghai Smart Company for Violation of Sensitive Goods Export Regulations, Export Control," Chinese Ministry of Commerce, <<http://exportcontrol.mofcom.gov.cn/aarticle/ar/200610/20061003349374.html#>>.

from the U.S. Embassy in Beijing.⁹⁷ Although in this case successful cooperation between U.S. and Chinese authorities led to an export enforcement action, such cooperation is not the norm and in some cases may be hindered by U.S. constraints in sharing intelligence information.

Also in 2008, a company called Zibo Chemet was penalized for selling glass-lined reaction vessels, equipment usable in chemical weapon production, to Iran.⁹⁸ The company was fined the equivalent of approximately \$50,000 USD and the case was publicized.⁹⁹ Zibo Chemet was a company that had been sanctioned on multiple occasions by the State Department, both before and after it was fined by China, so it may be that Chinese authorities were prompted by repeated U.S. action to investigate further.¹⁰⁰ In a more minor case, a company called Kurz Pressure Technology was fined in 2016 for importing items with a butanone content exceeding that allowed by China's regulations on the import and export of precursor chemicals.¹⁰¹

According to a statement by Chinese officials, between 2004 and 2014 the government investigated nearly 400 cases of potentially suspicious transactions, with approximately 70 cases being investigated in 2014 alone, suggesting a possible increase in the level of scrutiny (although total exports also rose over this period). It is not clear how many of these investigations led to an enforcement action of any kind.¹⁰²

Finally, it is important to note that corruption has remained a powerful force in Chinese society throughout the periods considered in this paper and may have informed whether or not to prosecute instances of export violations. Corruption also may have been a factor in decisions that led to the proliferation of weapon systems and components.

Looking Forward: China's Proposed New Export Control Law

Proliferation from China over the past few decades has shown a steady trend away from direct involvement by the government and by state-owned enterprises. While China remains a key source of supply for countries with programs of proliferation concern, the role of these enterprises has gone from active participant to sometime supplier and passive observer. At the same time, the role played by private actors has increased in importance as the tools of modern

97 Stephanie Lieggi, "From Proliferator to Model Citizen?: China's Recent Enforcement of Nonproliferation-Related Trade Controls and Its Potential Positive Impact in the Region," *Strategic Studies Quarterly*, 2010, <<http://www.dtic.mil/dtic/tr/fulltext/u2/a520787.pdf>>.

98 Ibid.

99 Ministry of Commerce Punishes Zibo Chemet Equipment Company for Violation of Export of Sensitive Goods Rule, Export Control, Chinese Ministry of Commerce, <<http://exportcontrol.mofcom.gov.cn/aarticle/ar/200803/20080305439549.html>>.

100 Ibid.

101 "Peoples' Republic of China Hefei Customs Administrative Office Penalty Decision," Hefei Customs District People's Republic of China, December 26, 2016, <<http://www.customs.gov.cn/publish/portal122/tab70777/info836649.htm>>.

102 Xiaoming Liu, "Upgrading to a New, Rigorous System: Recent Developments in China's Export Controls," Royal United Services Institute, March 2016, p. 4.

global commerce have made it possible to procure goods and arrange complex transactions with relative ease, including through cooperation with multiple parties in multiple countries. Even more troubling, individuals and private companies operating from China have been able to successfully import U.S.-origin goods for re-transfer to programs of proliferation concern in third countries.

The direct involvement of Chinese state-run firms in outbound proliferation appears to have declined in recent years. However, these firms continue to seek controlled U.S.-origin items. The conspiracies surrounding these transactions may have grown more complex, but Chinese state-owned aerospace and military firms still rely on this illicit trade. They can be expected to continue to do so as long as a gap exists between U.S. and Chinese technology.

China may pass its new Export Control Law in the near future.¹⁰³ The draft law puts a comprehensive export control system in place, replacing a patchwork of lists and regulations covering specific categories of controlled items. The law also applies to “intangible” items, such as technologies and services, and will cover re-exports and deemed exports. Goods involved in transit or transshipment via special customs supervision areas will be equally subject to the new regulations. Also, administrative penalties will be increased to equal as much as ten times the value of the illicit export, and employees deemed to be responsible for the activity would be subject to a fine of 300,000 yuan (approximately \$43,000 USD). Criminal penalties would also be possible under the new law, and could come in the form of both monetary fines and imprisonment.¹⁰⁴

The effectiveness of this proposed export control system will depend largely on how well it is implemented and how seriously enforcement is taken. In the United States, more than 50 public export enforcement actions against U.S. firms were taken by the Commerce Department alone in 2017.¹⁰⁵ That such a paltry number of similar actions have been carried out by the Chinese government over the past decade suggests that an incomplete export control system is only partly to blame; a lack of focus on enforcement has been another factor. This does not exclude the likelihood that in some instances authorities applied pressure to unscrupulous exporters behind the scenes and that these cases were not publicized in order to avoid bad publicity. However, for enforcement to have a deterrent effect, it is important for violations to be openly prosecuted and for guilty parties to be named and exposed. At the same time, China is not alone in failing to publicize enforcement actions; the legal system in a number of countries with robust export control systems do not allow the publication of names or other information that might identify violators.

There is also a question of whether the new law will prompt a change in the culture surrounding

103 “China Releases Draft Export Control Law for Public Comment,” Covington, July 21, 2017, <https://www.cov.com/-/media/files/corporate/publications/2017/07/china_releases_draft_export_control_law_for_public_comment.pdf>.

104 “People’s Republic of China Export Control Law,” Ministry of Commerce, June 16, 2017, <<http://tfs.mofcom.gov.cn/article/as/201706/20170602594467.shtml>>.

105 “Electronic FOIA – Export Violations,” U.S. Department of Commerce, Bureau of Industry and Security, <<https://efoia.bis.doc.gov/index.php/electronic-foia/index-of-documents/7-electronic-foia/227-export-violations>>.

export control and enforcement in China. Historically, China has publicly denied that these exchanges have taken place rather than investigating and potentially prosecuting the parties involved. The number and type of enforcement action over the next few years will be a sign that China intends to take the implementation of its new law seriously. Similarly, government efforts to engage and inform industry, particularly the private sector, about the requirements of the new law will be another sign of seriousness. Additional resources must be devoted to government agencies responsible for licensing and enforcement if the law's new measures are to be fully implemented.

In particular, it will be instructive to observe whether state-owned firms continue to seek items illegally exported from the United States and elsewhere. This would be an indication of a lack of determination to truly reform China's export control system. The case of telecommunications giant ZTE is a dramatic example of a state-owned firm that intentionally and repeatedly flouted U.S. re-export regulations and sanctions for profit. Once caught, ZTE faced a fine of more than \$1 billion USD and was temporarily prohibited from receiving U.S. components critical to its survival. The company was offered a choice: to accept a robust internal compliance system and oversight to ensure its adherence to U.S. export regulations, or to face a long-term restriction in its access to U.S. goods that could threaten its survival. Similarly, China faces a decision in undertaking its new Export Control Law. It can choose to enforce its own law and to cooperate with and respect the laws of other nations, or it can choose to continue to violate those regulations when it stands to benefit from doing so.



Sanctions on Russia: Are They Working, Workable, and Worth It?

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Abstract

Russian actions in Ukraine led to sanctions being imposed by the European Union, the United States, and several other countries. There is little evidence to date that these sanctions have had significant effect on Russia's economy or behavior. But the question of effectiveness is far from simple. This article addresses why effectiveness has been limited – is it a matter of scope, enforcement, or priority? What is meant by effectiveness in this context and what would it look like? The article will also look at the design of the sanctions – what effects if any were they meant to have and were they ever meant to have an economic impact? Is there evidence of sanctions evasion by Russia or are the volumes of affected trade so low as to make enforcement measures insignificant? If there is a political will to increase enforcement or to use sanctions as part of a policy to restrain Russian aggression, how might such aims be achieved? The article will engage systematically with existing literature, dealing both with the theory of sanctions and on studies undertaken on the subject of sanctions effectiveness, trade data and licensing statistics, and European Union reporting.

Keywords

Russia, sanctions, Office of Foreign Assets Control (OFAC), European Union, Ukraine

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Introduction

Following Russian intervention in the Ukrainian crisis in early 2014, sanctions were imposed on Russia by the European Union, the United States, and several other international partners. These sanctions have the stated objectives of hindering Russia's ability to legitimize its annexation of the Crimea and encouraging Russia to implement the Minsk Accords – the peace deal covering the Donets Basin region of East Ukraine.

Additional sanctions were imposed on Russia by the U.S. in retaliation for alleged interference in the 2016 U.S. election and these were further strengthened by the Countering America's Adversaries Through Sanctions Act (CAATSA) in 2017, and again in 2018 by the designation of various Russian oligarchs and officials. Sanctions were also imposed by the United Kingdom and 28 of its allies in response to the poisoning of Sergei Skripal and his daughter.

Lone voices, such as that of Liubov Nephop, currently Ukraine's ambassador to Hungary, claim that sanctions have curtailed Russian aggression and affected its economy.² Russia's economy has evidently experienced a downturn since 2014, but that may reflect the low price of oil rather than any effect of sanctions. Reluctance voiced by officials in Germany, Italy, and other EU Member States to maintain the EU's sanctions on Russia suggest that it is the EU, rather than Russia, that has suffered the more.

Russia's role as an energy supplier affects sanctions in four ways. First, oil and gas comprise the majority of Russia's exports and these are relatively untouched by the sanctions. Second, Russia's major oil and gas customers include those in the EU who are imposing the sanctions, leading to a clear conflict of conscience. Third, the restriction on the export to Russia of oil industry equipment is inconsistent with the EU's continued dependence on Russian oil. Fourth, Europe's future energy security may depend on a cooperative relationship with Russia that would be inconsistent with effective implementation of sanctions.

The political and economic interdependency of Russia with the rest of the world makes effective implementation of sanctions extremely challenging and raises the question of whether the sanctions were ever intended to have an economic impact.

Sanctions are by no means universally recognized as a useful tool of foreign policy. While Hufbauer, Schott, and Elliot calculated a success rate of nearly 35% for economic sanctions, this figure was questioned by Pape, whose re-examination of the same cases concluded a much

2 Nephop expressed this view in an interview with The Budapest Times in November 2016: "I agree that sanctions have not yet achieved the desired result but I am convinced that they helped to stop the attack. If we want to increase their effectiveness, we must strengthen them. Recently Russia's President Putin requested Washington to lift the sanctions and compensate losses. What more proof is required that the sanctions are working?" The full text can be found at "Interview of Ambassador of Ukraine Liubov Nephop to Hungarian Newspaper 'The Budapest Times,'" Embassy of Ukraine in Hungary, November 26, 2016, <<https://hungary.mfa.gov.ua/en/embassy/ambassador/interviews/5025-ugorshhino-nam-potribna-tvoja-dopomoga-intervju-posla-lyubovi-nepop-ugorsykij-anglomovnij-gazeti-the-budapest-times>>.

lower rate of around five percent.³ Opponents also point to the disproportionate effects felt by vulnerable, innocent parties – some analysts attributed over half a million child deaths in Iraq to the effects of sanctions. The Iraq experience is considered to have led to the development of smart, or targeted sanctions designed to target individuals deemed responsible for the offence, while sparing the innocent as far as possible.

In the case of the sanctions on Russia, all actors have broadly applied sanctions in a targeted manner through travel bans, asset freezes, lists of designated individuals, and restrictions on specific economic sectors. In this respect, the world builds on its previous experience – good and bad. Yet Russia is a special case, limiting the value of precedent: first, it is a powerful state, able to withstand economic pressures, particularly those designed to have low impact on the general public. Second, it is an oligarchy, in which the interests of big business cannot easily be separated from those of the state. Third, much of Europe depends on Russian energy.

Galtung, Taylor, Giumelli, and others have examined the purpose and value of sanctions in general, and how to measure their effectiveness. Galtung pointed to the symbolic purpose of sanctions alongside any desired change of behavior in the target country.⁴ Taylor placed sanctions as part of the wider strategies that states must play, arguing in effect that they are designed as much to influence allies and partners as the targeted states.⁵ Giumelli outlined three main purposes for sanctions: coercion, constraint, and signaling.⁶ Evidently it is only by understanding the objectives of the sanctions – beyond the detail of the designation lists themselves – that we can assess how effective they have been.

It is perhaps to these less obvious impacts that we should look given that Russia clearly has not yet buckled under the weight of sanctions and acceded to EU and U.S. demands on Ukraine. Yet this article will also try to explain why the effects so far have apparently been so limited and examine what options might be available to the U.S., EU, and their allies, if there is political will, to influence Russian behavior.

The level of political will is difficult to gauge, particularly as it is subject to fluctuation in response to events. Sjursen and Rosen saw an unexpected cohesion and solidarity in the EU's collective imposition of sanctions. Yet as the Ukraine conflict looks increasingly intractable, such cohesion will be increasingly tested: first if Member States perceive that their national interests are at odds with the Common Position and second whether the Common Position itself

3 Gary Clyde Hufbauer, Jeffrey J. Schott, and Kimberley Ann Elliott, *Economic Sanctions Reconsidered*, Second Edition, Vol. 1: History and Current Policy; Volume II: Supplemental Case Histories (Washington, DC: Institute for International Economics, 1990); Robert Pape, "Why Economic Sanctions do Not Work," *International Security*, Vol. 22, No. 2 (1997), pp. 90-136.

4 Johan Galtung, "On the Effects of International Economic Sanctions, With Examples from the Case of Rhodesia," *World Politics*, Vol. 19, N. 3 (April 1967), pp. 378-416.

5 Brendan Taylor, *Sanctions as Grand Strategy* (London: International Institute for Strategic Studies, 2010).

6 Francesco Giumelli, *Coercing, Constraining and Signalling: Explaining UN and EU sanctions after the Cold War* (Lanham: Rowman and Littlefield International, 2011).

is tenable.⁷ The unintended consequences are also relevant – even if the targeted sanctions are smart enough to prevent unnecessary hardship among the Russian public, they cannot prevent China from moving into the vacuum left by the EU and its allies.⁸

In terms of its structure, the article first summarizes the scope and detail of the sanctions, and how they have evolved, mostly drawing on official U.S. and EU sanctions documentation. Using the same sources, as well as official statements surrounding them, the article then examines the intent behind the sanctions. It then turns to the question of how effective the sanctions have been. To do so, the author looks in some detail at the theories and history of sanctions, and applies these, where possible, to the sanctions on Russia. This is followed by a detailed examination of published trade figures for Russia, EU, and others, as well as licensing statistics, to attempt to reach a view to how much impact there has been on the Russian economy and that of its trading partners.

The article then explores the challenges facing effective sanctions implementation, drawing out the counter-pressures that Russia can exert and the risks of sanctions evasion. Particular attention is given to EU Member States' ongoing need for Russian oil and gas. From there, the article proposes steps that might enhance the effectiveness of the sanctions.

The Scope and Detail of Sanctions

The EU introduced a range of measures from March 2014 onwards, all of which remain in place. These comprise: an asset freeze and travel ban on 155 named people and 44 named entities for actions which “undermined Ukraine’s territorial integrity, sovereignty and independence,” an asset freeze on named individuals deemed to have embezzled money from the Ukrainian state; restriction of imports from, and exports to, Crimea and Sebastopol; and economic sanctions against Russia which limit the access of Russian banks and companies to EU markets, ban the trade in arms, ban the export of dual-use goods to Russia, and restrict sales to Russia of specialist oil industry equipment; and restrictions on economic cooperation.⁹

The EU built into these sanctions the conditions under which they would be lifted, stating its readiness to reverse its decisions and reengage Russia if the latter began actively and unambiguously to seek a solution to the Ukrainian crisis. Specifically, the duration of the economic sanctions was linked to Russian implementation of the Minsk Agreements.¹⁰

7 H. Sjørnsen, G. Rosén, “Arguing Sanctions: On the EU’s Response to the Crisis in Ukraine,” *Journal of Common Market Studies*, Vol. 55, Issue 1 (2017).

8 Peter Rutland, “The Impact of Sanctions on Russia,” *Russian Analytical Digest*, No. 157, (December 17, 2014), p 7.

9 “EU Restrictive Measures in Response to the Crisis in Ukraine,” European Council, <<http://www.consilium.europa.eu/en/policies/sanctions/ukraine-crisis/>>.

10 The following page, which is updated by the EU, gives up-to-date details on the details of the EU’s restrictive measures. “EU Sanctions against Russia over Ukraine Crisis,” European Union Newsroom, <https://europa.eu/newsroom/highlights/special-coverage/eu-sanctions-against-russia-over-ukraine-crisis_en>.

In March 2014, the United States imposed asset freezes and travel bans against unspecified individuals who had “asserted governmental authority in the Crimean region without the authorization of the Government of Ukraine,” destabilized Ukraine, or contributed to the misappropriation of its assets.¹¹

In April 2014, the U.S. imposed a transactions ban on seven Russian individuals and 17 Russian companies (mainly energy companies and banks). In July 2014, major energy firms Rosneft and Novatek and major Russian banks Gazprombank and Vnesheconombank were added to this list. Sectoral sanctions in September 2014 added numerous energy companies, including Gazprom and Lukoil, to the Office of Foreign Asset Control’s list of Specially Designated Persons.¹²

Canada, Japan, Australia, and several European non-EU countries imposed sanctions around the same time. Iceland, Albania, Montenegro, Moldova, and Norway largely mirrored the EU measures while Ukraine drew up a more comprehensive list of Russian companies and individuals, a list which it has continued to expand up to the present day, and which, as of June 2018, stood at 1,762 individuals and 786 entities.^{13,14}

The Stated Grounds and Intent Behind the Sanctions

To assess the effectiveness of the measures against Russia it is important to examine what the stated intended effects were, then to look for ways to examine how far these have been achieved. It will also be necessary to examine what is meant by “effective” in this context. Statements issued by the countries imposing the sanctions at the time point to different agendas among them.

The sanctions imposed on Russia since 2014 are unusual in that they have been imposed by a variety of different actors, at various times, in response to a range of different events. The sanctions have cited various Russian offences against the norms of international law. The result is an amorphous collection of measures - the “sprawling catalogue of sanctions” criticized by Wolfgang Büchele, chairman of The Eastern Committee of the German Economy - imposed for

11 “Executive Order -- Blocking Property of Certain Persons Contributing to the Situation in Ukraine,” The White House, March 6, 2014, <<https://obamawhitehouse.archives.gov/the-press-office/2014/03/06/executive-order-blocking-property-certain-persons-contributing-situation>>.

12 The persons and entities added to the US Treasury’s Specially Designated Nationals List on April 28, 2014 can be found here: “Ukraine-related Designations, OFAC, <<https://www.treasury.gov/resource-center/sanctions/OFAC-Enforcement/Pages/20140428.aspx>>. The persons and entities added to the SDN List on September 12, 2014 can be found here: “Ukraine-related Sanctions,” OFAC, <<https://www.treasury.gov/resource-center/sanctions/OFAC-Enforcement/Pages/20140912.aspx>>.

13 Radio Free Europe reported new Ukrainian sanctions against Russia. <https://www.rferl.org/a/poroshenko-enacts-new-sanctions-against-russia/29234864.html>, accessed 28 November 2018.

14 Ukraine’s Council of National Security and Defense issued a statement on 22 June 2018 giving details of the latest presidential decree expanding sanctions. The statement is reported at <<https://www.reuters.com/article/us-ukraine-russia-sanctions/ukraine-extends-its-russian-sanctions-list-idUSKBN1JI0F9>>.

a range of reasons.¹⁵ The following lists illustrate this.

List of senders	List of offences cited as grounds for restrictive measures/sanctions	List of measures
United States	Annexation of Crimea	Travel bans
European Union	Misappropriation of Ukrainian funds	Asset freezes
Ukraine	Undermining the democratic processes and territorial integrity of Ukraine	Arms embargo
Norway	Interference in US elections	Ban of dual-use exports to Russia
Albania	Activities of Russian special services in cyberspace	Restrictions on exports of oil industry equipment.
Montenegro	Use of nerve agent in Salisbury, UK.	Financial measures against selected Russian banks
Australia	Support for the Assad regime in Syria	
Canada		
Japan		
Moldova		

Section 2A: EU Sanctions on Russia

From March 2014 onwards, the EU has been clear in linking its restrictive measures to the “illegal annexation of Crimea and Sevastopol” and to “actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine.” Albania, Montenegro, and Norway quickly aligned themselves to the EU’s position.

In Council Decision 2014/145/CFSP of March 17, 2014, the European Union adopted its first “restrictive measures in respect of actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine.” These measures comprised travel bans and asset freezes applied to named officials deemed to have been involved in Russia’s annexation of Crimea and Sebastopol.¹⁶

The EU clarified the general intent behind its restrictive measures in April 2014. A factsheet issued by the European Council stated that

“Sanctions are one of the EU’s tools to promote the objectives of the Common Foreign and Security Policy (CFSP): peace, democracy and the respect for the rule of law, human rights and international law.”

¹⁵ Ostausschuss der deutschen Wirtschaft (OA).

¹⁶ “Council Decision 2014/145/CFSP of 17 March 2014 concerning restrictive measures in respect of actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine,” European Council, March 17, 2014, <[https://eur-lex.europa.eu/eli/dec/2014/145\(1\)/oj](https://eur-lex.europa.eu/eli/dec/2014/145(1)/oj)>.

They are always part of a comprehensive policy approach involving political dialogue and complementary efforts. EU sanctions are not punitive but designed to bring about a change in policy or activity by the target country, entities or individuals. Measures are therefore always targeted at such policies or activities, the means to conduct them and those responsible for them. At the same time, the EU makes every effort to minimize adverse consequences for the civilian population or for legitimate activities.”¹⁷

The EU’s stated principle of using sanctions as a tool of foreign policy appeared to be borne out when, in March 2015, it linked economic sanctions to the complete implementation of the Minsk Agreements.¹⁸ The economic sanctions (limiting access to capital, introducing an arms embargo, banning export of dual-use goods, and restricting the export of oil industry equipment) had already been in place since July 2014, but linking them to the Minsk Agreements underlined their targeted foreign policy function.

According to the European External Action Service (EEAS), full implementation was anticipated by the end of 2015.¹⁹ When Russia failed to implement, the European Council extended the sanctions for a further six months – and has continued to do so every six months since.

Francesco Giumelli’s definition of the aims of sanctions, as being to coerce, constrain or signal, may be usefully applied in this case.²⁰ The travel bans and asset freezes do not appear to have a coercive role; they are unlikely to coerce the named individuals, even less the Russian state, into any position of compliance. Elements of constraint and signaling, however, are both discernible: constraint, in that officials involved in what the EU publicly holds to be offences against international law are impeded from realizing their pretensions on the international stage; signaling, in that these are a concrete means for the EU to express its internal unity, its solidarity with Ukraine, its disapproval of Russia’s actions in Ukraine, and its support for the norms of international law.

17 “Factsheet: EU Restrictive Measures,” Council of Europe, April 29, 2014, <http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/foraff/135804.pdf>.

18 The Minsk Protocol was signed on September 5, 2014. The full text is available here: “Protocol on the Results of Consultations of the Trilateral Contact Group,” September 5, 2014, <<https://mfa.gov.ua/en/news-feeds/foreign-offices-news/27596-protocolon-the-results-of-consultations-of-the-trilateral-contact-group-minsk-05092014>>. A revised text was agreed on February 15, 2015, referred to variously as the Minsk II agreement and the package of measures for the Implementation of the Minsk Agreements for which the full text is available here: <https://peacemaker.un.org/sites/peacemaker.un.org/files/UA_150212_MinskAgreement_en.pdf>.

19 The European External Action Service (EEAS) is the EU’s diplomatic service responsible for helping shape and carry out the EU’s Common Foreign and Security Policy (CFSP). Its account of the EU’s restrictive measures on Russia is found here: “EU Restrictive Measures in Response to the Crisis in Ukraine,” EEAS, <https://eeas.europa.eu/delegations/russia_en/30963/EU%20restrictive%20measures%20in%20response%20to%20the%20crisis%20in%20Ukraine>.

20 Francesco Giumelli, *Coercing, Constraining, Signalling: Explaining UN and EU Sanctions after the Cold War* (Colchester: ECPR Press, 2011).

The EU's economic measures, however (and those of its partners) are less easy to map onto Giumelli's model. The linkage to the implementation of the Minsk Agreements clearly suggests a coercive intent, in that they make the lifting of sanctions contingent upon the restoration of full Ukrainian sovereignty. Put another way, the asset freezes and travel bans may be understood as aimed at preventing those who had assisted Russia's annexation of the Crimea from legitimizing that act. The economic sanctions, on the other hand, were ostensibly intended to persuade the Russian state to cease its involvement in the Ukrainian crisis and to reverse its illegal appropriation of Ukrainian territory. Giumelli is clear, however, that constraining and signaling elements may also be at play, even when policy change is a stated objective, and there are several factors in the EU's economic sanctions on Russia that appear to undermine a purely coercive interpretation of them. These are listed in summary form as follows:

- The question of whether full implementation of the Minsk Agreements is realistic (in the short, medium, or long term);
- The question of whether any coercive influence can be exerted on Russia at all;
- The fact that energy products which dominate both Russia's economy and the EU's trade with Russia are exempt from the direct scope of the sanctions, raises the question of whether the sanctions can ever be more than a pinprick;
- Whether, regardless of any sympathy for Ukraine, the EU's need for Russian energy, now and in the future, makes coercion not only impossible, but potentially undesirable.

H. Sjursen and G. Rosen found the EU's cohesiveness in its agreement to impose sanctions surprising as many Member States appeared to act against their national interest. They concluded that "neither a concern for security (as would be expected from a realist perspective) nor the institutionalization of a norm of cohesion (which would be the constructivist expectation) triggered the collective response. Instead, agreement was established due to concurrence over a fundamental breach of the Ukrainians' right to self-determination." In other words, a nobility of purpose, in which "norms may trump interests." However, many public statements at the time, and several of the interviews carried out for Sjursen and Rosen's study, refer explicitly to the need for the EU to have a coordinated response (Hague, House of Commons 2014), or stress the normative obligations that EU membership brings, suggesting that the need to act as a bloc, and put the CFSP into practice, was indeed a factor in bringing about consensus.

Likewise the pleas by the Baltic States for reassurance, answered most emphatically by NATO in setting up a rapid reaction force to deploy to the Baltics in the event of a military threat, suggest that the territorial integrity of EU Member States was perceived to be threatened and therefore that the EU's imposition of sanctions was, at least in part, motivated by a concern for security. Ultimately, exploring why the EU acted in unison to impose sanctions may be useful in examining the EU's potential to enact a common security and foreign policy, but it does not shed any light on what the EU, either as a collective or in its separate states, hoped to achieve from the sanctions.²¹

21 Helene Sjursen and Guri Rosén, "Arguing Sanctions: On the EU's Response to the Crisis in Ukraine," *Journal of Common Market Studies*, Vol. 55, Issue 1 (January 2017).

Section 2B: U.S. Sanctions on Russia

Although Giumelli's analysis has focused most strongly on EU sanctions, his, and other analyses, are equally applicable to the unilateral measures imposed by the United States. In terms of the grounds cited for the imposition of sanctions on Russia, these have ranged from the annexation of Crimea (against individuals who had "asserted governmental authority in the Crimean region without the authorization of the Government of Ukraine"), interference in the 2016 U.S. elections, involvement in Syria, the Skripal poisoning case, and offensive cyber activity. U.S. Treasury Secretary Steven Mnuchin summed this up in April 2018, saying that,

*"The Russian government operates for the disproportionate benefit of oligarchs and government elites. The Russian government engages in a range of malign activity around the globe, including continuing to occupy Crimea and instigate violence in eastern Ukraine, supplying the Assad regime with material and weaponry as they bomb their own civilians, attempting to subvert Western democracies, and malicious cyber activities."*²²

Clearly by 2018, the U.S. was using sanctions for a variety of perceived offences on Russia's part. The "malign activity around the globe" comment, however, shows two things: first, that while they may be separately listed, all offences come under the overall heading of illegal or unacceptable conduct against which political and economic measures may be justified; second, that the U.S., like the EU, is using sanctions as a tool of foreign policy.

The U.S. has been clear that the sanctions it was imposing were designed to have an economic impact. U.S. President Obama, in explaining his decision in April 2014 to extend sanctions to additional Russian officials and companies said that, while his goal was not to target President Putin personally, he was seeking to "change his [Putin's] calculus with respect to how the current actions that he's engaging in could have an adverse impact on the Russian economy over the long haul."²³ The intention to have an economic impact was underlined by Mnuchin in April 2018, who, announcing new sanctions, said that Russians "who profit from this corrupt system will no longer be insulated from the consequences of their government's destabilizing activities."²⁴ This shift, which justifies measures against oligarchs simply for being closely linked to the Russian state, was described by Elizabeth Rosenberg, a former US sanctions official, as follows: "It's designed to communicate seriousness and really up the ante with Russia."²⁵ H.R. McMaster, in his outgoing remarks as National Security Advisor to President Trump, stated that "we have failed to impose sufficient costs [on Russia]."²⁶

Returning to Giumelli's model, in which sanctions have a coercive, constraining, or signaling

22 "U.S. Punishes Key Putin Allies over Worldwide 'Malign Activity'," *BBC*, April 6, 2018.

23 "U.S. Sanctions Russians over Ukraine," *Reuters*, April 28, 2014.

24 "U.S. Punishes Key Putin Allies over Worldwide 'Malign Activity'," *BBC*, April 6, 2018.

25 "U.S. Sanctions Hit Putin Allies, Including Billionaire Deripaska," *Bloomberg*, April 6, 2018.

26 McMaster was speaking on April 3, 2018 to the Atlantic Council in Washington DC. Extracts are reported here: "McMaster: 'We have Failed to Impose Sufficient Costs' on Russia," *The Hill*, April 4, 2018.

function, it is clear that the U.S. travel bans and asset freezes are constraining and signaling measures, as they are for the EU. But equally, the economic measures are harder to map onto Giumelli's model. They do not appear to be aimed at achieving any specific single outcome, but nevertheless are clearly aimed at altering Russian behavior by weakening it economically and punishing (if that is not too strong a word) oligarchs for their ties to the Kremlin. In this respect they are coercive. There is clearly also an element of constraint – proportionate and achievable measures that might dissuade Russia from further interference in elections or sinister assassination attempts overseas. Clearly there is a strong element of signaling also: solidarity with Ukraine; solidarity with the EU and other international partners; solidarity with the UK over the Skripal case, and demonstration of support for international law.

A key feature of the U.S. sanctions is the “50% rule” operated by the U.S. Treasury Department's Office of Foreign Assets Control (OFAC). This rule states that if an entity is 50% owned by a sanctioned entity on the Specially Designated Nationals and Blocked Persons (SDN) list, then that entity also held to be sanctioned. In August 2014, (at the time of the Crimea measures) OFAC expanded the scope of the 50% rule to state that if an entity is 50% owned by multiple SDN-listed entities collectively, then that entity is also held to be sanctioned.²⁷ The onus for compliance with the 50% rule falls on companies, posing significant challenges. As law firm Gibson Dunn pointed out in April 2018 following the U.S. designation of 40 oligarchs, “the opacity of ownership in the Russian economy makes the 50% rule very difficult to operationalize.”

Despite differences of detail, there is a strong coherence between the U.S. and the EU sanctions on Russia. Unlike previous sanctions regimes, the target is a powerful economic, political, and military force, and one moreover that is keen to project that power. There cannot be any suggestion that the sanctions are the bullying of the weak by the strong. The normative values align, and, for the most part, the stated objectives.

What sets the U.S. measures apart from the EU ones, in terms of how their objectives are defined, is the absence, in the case of the U.S. sanctions, of the complicating factor of energy dependence. Despite the allegations of ulterior economic motives, despite the array of targets and the growing list of offences, there are none of the contradictions that the energy trade puts in the path of EU sanctions implementation. An informed view as to whether the sanctions are working, worth it, and workable cannot overlook the importance of the Russia-EU trade in energy. The next section of the article will assess the results of the sanctions so far. It will try to isolate the contributing factors and then focus on the energy trade as a significant factor affecting the success of the sanctions.

How Successful Have the Sanctions Been (and What Would Success Look Like)?

This article might well dive into trade figures at this point, being arguably the most measurable and objective means to assess whether, or how well, sanctions on Russia have worked.

27 “Revised Guidance on Entities Owned by Persons whose Property and Interests are Blocked,” OFAC, August 13, 2014, <https://www.treasury.gov/resource-center/sanctions/Documents/licensing_guidance.pdf>.

However, before doing so, it is worth considering how success might look. It is tempting to define Russia's failure to implement the Minsk Agreements as a failure of sanctions. The logic for such an analysis would be that the EU, by making the lifting of sanctions conditional upon the implementation of the Minsk Agreements, was aiming to induce a policy or behavioral change in Russia by inflicting economic penalties; but that as the desired change has not come about, the sanctions have therefore failed.

Such a conclusion would ignore several factors. First, as a benchmark from which to measure success, it would be useful to look at how successful sanctions can be expected to be, based on previous experience. Second, it may not be helpful to view effects in terms of complete success or total failure – there may be degrees of success. Third, there is the dimension of time, allowing for accumulation of effect, or progress towards success. Fourth, there are other measures of success beyond the extraction of political concessions.

To begin with, it may be helpful to consider how successful sanctions, at least economic sanctions, are expected to be. Robert Pape, in his 1997 paper “Why Economic Sanctions do Not Work,” questioned previous studies, notably that of Hufbauer, Schott, and Elliot, (*Economic Sanctions Reconsidered*, 1985), who had determined a 34% success rate in a total of 115 identified cases of economic sanctions. Arguing that Hufbauer, Schott, and Elliot had overestimated the success of economic sanctions, Pape dismissed most of the claimed successes on various grounds, such as that the outcomes were determined by force, not sanctions, or that sanctions failed to extract any concessions, before arriving at a success rate of under 5%.

Pape argued that it is unrealistic to expect sanctions to “overwhelm a state's commitment to pursue important policy goals.” Many states would endure considerable punishment rather than abandon their national interests or beleaguered leadership. Furthermore, governments might mitigate economic damage of sanctions through substitution and by ensuring that the ruling elites on which they depend are protected from the worst effects.²⁸

This last point proved disastrously true for Iraq. A study published by Mary Smith Fawzi, a researcher at the Harvard University School of Public Health, and Sarah Zaidi, science director of the Center for Social and Economic Rights in New York, calculated that up to 576,000 children had died in Iraq as a result of UN sanctions by 1995.²⁹

The humanitarian cost of sanctions led to the development of targeted, or smart sanctions. As Portela put it, “Targeted sanctions are designed to put pressure on the leaders or specific elites who are deemed responsible for objectionable behavior. They purport to channel harm toward specific public figures and their backers, while the population at large is spared.”³⁰ A targeted approach was endorsed by the European Council in its 2004 note to the Committee of Permanent Representatives in the European Union (COREPER) on *Basic Principles on*

28 Robert Pape, “Why Economic Sanctions do Not Work,” *International Security*, Vol. 22, No. 2 (1997), pp. 90-136.

29 “Iraq Sanctions Kill Children, U.N. Reports,” *New York Times*, December 1, 1995.

30 Clara Portela, “The EU's Use of Targeted Sanctions: Evaluating Effectiveness,” CEPS Working Document No 391, March 2014, p 50.

the Use of Restrictive Measures in 2004, in which it stated that “Sanctions should be targeted in a way that has maximum impact on those whose behavior we want to influence. Targeting should reduce to the maximum extent possible any adverse humanitarian effects or unintended consequences for persons not targeted or neighboring countries.”³¹

In 2011, Daniel Drezner hailed smart sanctions as “a rare success story of fruitful collaboration between scholars, policymakers, and diplomats.” However, he went on to show that smart sanctions, though good in theory, were widely regarded as less effective in obtaining concessions from the target government.³²

So how smart are the sanctions on Russia? The EU appears to have gone down the “smart” route in all respects. The arms embargo, travel bans, asset freezes, and designations lists are all measures designed to target with precision. The U.S. economic sanctions, particularly those imposed from April 2018 onwards (see previous comments from U.S. Treasury Secretary Steven Mnuchin) appear targeted more broadly towards major stakeholders in the Russian government.^{33,34} Although the U.S. measures may therefore fall less easily into the definition of smart sanctions, they may represent an approach better tailored to the task of influencing an oligarchy.

In the case of the EU sanctions at least, it seems clear that the sanctions were not intended to cause any adverse humanitarian consequences to any of the population of Russia or Crimea - and no reporting suggests that any such unintended hardship occurred. So one of the conditions for the smartness of the sanctions - namely the avoidance of hardship inflicted on innocent parties - is met. The other condition - whether the sanctions have been smart enough to have a constructive effect on those targeted - is less clear.

Then there is the factor of time. Rather than to say that the Minsk Agreements have not been implemented, it is more true to say that they have not been implemented *yet*. Sanctions targeted at Iran’s uranium enrichment program were put in place starting in 2006, under United Nations Security Council resolution 1696, yet it was not until 2015 that the Joint Comprehensive Plan of Action (JCPoA) was signed. It is not within the scope of this paper, or the skill of the author, to tease out the numerous strands of work that contributed to the agreement of the JCPoA, but it is arguable that sanctions deprived Iran of the option to maintain a long-term strategy of ambiguity, thus compelling it ultimately to negotiate. Likewise UN sanctions against North Korea have been in place since its first nuclear test in 2006, and while they may not have solved all of the foreign policy problems that the international community faces in respect of North Korea, Kim Jong Un’s 2018 New Year speech suggested that sanctions were having a strong effect: “Last year the moves of the United States and its vassal forces to isolate and stifle our

31 “Note from European Council Secretariat to COREPER on Basic Principles on the Use of Restrictive Measures (Sanctions),” Council of the European Union, Brussels, June 7, 2004, <<http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2010198%202004%20REV%201>>.

32 Daniel W. Drezner, “Sanctions Sometimes Smart: Targeted Sanctions in Theory and Practice,” *International Studies Review*, Vol. 13, Issue 1 (March 1, 2011), pp. 96–108.

33 “U.S. Punishes Key Putin Allies over Worldwide ‘Malign Activity’,” *BBC*, April 6, 2018.

34 “U.S. Sanctions Hit Putin Allies, Including Billionaire Deripaska,” *Bloomberg*, April 6, 2018.

country went to extremes, and our revolution faced the harshest-ever challenges.”³⁵ This is not to force any unsuitable comparison between the situation in Ukraine and those concerning Iran or North Korea; but to make the point that sanctions can be part of a long-term strategy, and that cumulative pressure may eventually contribute to the implementation of the Minsk Agreements.

Currently, it looks unlikely. Rutland’s “interim assessment” in December 2014, that “if the Western leaders assumed that Putin would respond to carefully calibrated incentives for cooperation, they were ... mistaken” might only have allowed the sanctions six months to take effect, but the intervening four years have not seen any more progress. The dispute remains unresolved, a stalemate flaring up occasionally, a situation not unlike the “frozen conflict” of Transnistria.³⁶

The third factor to consider is whether the stated goal of full implementation of the Minsk Agreements was ever intended to be realistic. In his paper “How EU Sanctions Work: A New Narrative,” Francesco Giumelli draws distinctions between the objectives of coercion and constraint. He argues that “the coercive aspect seeks a behavioral change on the part of targets” whereas constraining “aims at undermining the capabilities of targets to achieve policy objectives.” He goes on to argue that “constraining sanctions are often used to fight groups or entities that are not willing to conform to the established norms of international society.”³⁷

This raises the question of whether the EU ever considered Russian implementation by the end of 2015 to be a realistic outcome. It is arguable that neither economic pressure, nor any other peaceful means, could have induced Russia to have restored Ukraine’s pre-conflict territorial integrity. If so, then the EU’s imposition of economic measures, and their subsequent linking to full Russian implementation of the Minsk Agreements, may be seen not as a coercive step, but as a mid- to long-term instrument of constraint (using Giumelli’s terminology). In other words, if there is no realistic chance of Russian compliance (and this being understood at the outset by the imposers), then the criteria for success must also be assessed in different terms, such as how sanctions have enabled certain pressures to be exerted and maintained on targeted individuals, groups, and companies.

Leading on from the argument that the EU’s economic measures against Russia may be seen as a constraining rather than a coercive step, it is useful to consider that, even if they have not (yet) brought about a reversal of Russia’s actions in Ukraine, they may have helped to prevent further violations of international law by Russia. Brendan Taylor points out that “great powers employ sanctions not only to influence ‘target’ actor behavior ... but also one another in the context of larger grand strategic games that nations notoriously play.”³⁸ Giumelli argues that, in assessing

35 The full text of the New Year speech can be found here: “Kim Jong Un’s 2018 New Year’s Address,” National Committee on North Korea, <<https://www.ncnk.org/node/1427>>.

36 Peter Rutland, “The Impact of Sanctions on Russia,” *Russian Analytical Digest*, No. 157, (December 17, 2014).

37 Francesco Giumelli, “How EU Sanctions Work: A New Narrative,” EUISS Chaillot Paper, No. 129, May 2013.

38 Brendan Taylor, *Sanctions as Grand Strategy* (London: International Institute for Strategic Studies, 2010).

the effectiveness of sanctions, one must ask what would have happened had sanctions not been imposed.³⁹ Despite the evident weakness in this last point - that it is impossible to know the outcome of a chain of events that did not occur - the argument that measures must be judged in the context of the available alternatives is a good one, and certainly valid in this case. Latvia, Estonia, Lithuania, and Moldova all have significant Russian-speaking minorities, and within those countries there are areas where the ethnic Russian and Russophone population may be in the majority. This study will not attempt an exhaustive analysis of Russia's reasons, explicit or implicit, for intervening in Ukraine, but it is reasonable to assume that the ethnic Russian majority in Crimea and in other parts of Eastern Ukraine formed part of Russia's justification for intervention. It is impossible to know how far EU sanctions may have contributed to the absence, so far, of any equivalent Russian support for its populations in Moldova or the Baltic States, but clearly the restrictive measures are among the few tools that might aim to constrain Russia from further such acts of aggression.

Although "signaling" is perhaps the least tangible of Giumelli's three main roles of sanctions, its evident importance in the sanctions on Russia makes it essential to assess how far this function has been successful. As a general rule, no assessment of sanctions can afford to overlook their symbolic effect. It was Galtung who observed that sanctions could perform useful symbolic functions.⁴⁰ In Giumelli's model, "signaling" is one of the fundamental objectives of sanctions. In this case the signals comprise (at least) the following:

- The EU's internal solidarity and ability to follow a united foreign policy;
- Solidarity with Ukraine;
- The senders' solidarity with those countries, whether EU Member States or otherwise, that have significant Russian-speaking minorities, and which therefore might have particular reason to fear Russian interference;
- The senders' support for the norms of international law.

Various Russian actions since 2014 have resulted in a multilateral array of sanctions that respond to a variety of perceived violations, but in signaling terms, they all bear the same normative message: support for international law and non-acceptance of those who would violate it.

Giumelli proposes "salience" as a means to measure the effectiveness of signaling. Salience refers to the significance, importance, and urgency that an actor ascribes to a certain issue on the political agenda. According to Oppermann, the salience of a topic depends on how much media coverage it receives and how much it comes up for political debate.⁴¹ The modern information environment clearly makes such a metric increasingly complicated and prone to

39 Francesco Giumelli, "How EU Sanctions Work: A New Narrative," EUISS Chaillot Paper, No. 129, May 2013.

40 Johan Galtung, "On the Effects of International Economic Sanctions, With Examples from the Case of Rhodesia," *World Politics*, Vol. 19, N. 3 (April 1967), pp. 378-416.

41 Kai Oppermann, "Salience and Sanctions: A Principal-Agent Analysis of Domestic Win-sets in Two-Level Games—The Case of British European Policy under the Blair Government," *Cambridge Review of International Affairs*, Vol. 21, N. 2 (August 13, 2008).

error, even if one ignores (at one's peril) any supposed distinction between real and fake news; so this study cannot see any objective means to measure the success of the signaling element of sanctions against Russia. Instead it must fall back on the following judgements:

- That in stating, and continually re-stating, the reasons for the sanctions, and Russia's failure to live up to the Minsk Agreements, the principal actors (EU and U.S.) maintain a strong narrative and affect the international discourse in favor of international law and the resolution of dispute by diplomatic means;
- That the cumulative statements by the actors assure Ukraine and all other international partners, especially those with significant Russian minorities, of EU and U.S. support for their territorial integrity;
- That the frequent addition of new entities and individuals to the designations listings, as well as the scheduled revisits to the sanctions, are a means for the topic to be kept in the news.

The Economic Effects of the Sanctions

Writing in 2014, Sergey Glazyev, Economic Advisor to the Russian President, described the sanctions as economic war declared on Russia by the U.S. and the EU and maintained that "the sanctions, in conjunction with the Bank of Russia's monetary tightening, are extremely dangerous for the Russian economy."⁴²

Writing in December 2014, Peter Rutland claimed that "The sanctions are having a more serious impact than President Vladimir Putin anticipated, but have yet to induce Russia to engage in more cooperative behavior."⁴³

Speaking in December 2014, Russian Prime Minister Dmitry Medvedev estimated that the Russian economy had lost tens of billions of U.S. dollars as a result of sanctions.⁴⁴ The arguments around coercion, compliance, constraint, and symbolism should not entirely overshadow the economic factors. The targeted sectoral economic measures imposed by the EU and its allies, and the designation of specific individuals, entities, and companies by the U.S. in particular, are designed, ostensibly at least, to have a targeted economic impact. Clearly an assessment of the effectiveness of such measures cannot be seen in binary terms – as absolute success or failure – but it may be possible to gauge how far the restrictive measures have affected the targeted entities, and indeed EU-Russia trade and the Russian economy more widely. This section of the article relies on published economic figures to shed light on the volumes of Russia-EU trade, the nature of that trade, and the performance of the Russian economy in general and its major companies in particular. It will then look for possible correlation with sanctions and with other external pressures such as global prices.

42 Sergey Glazyev, "Sanctions of the USA and the Policy of Bank of Russia: Double Blow to the National Economy," *Problems of Economic Transition*, Vol. 58, Issue 3 (2016).

43 Peter Rutland, "The Impact of Sanctions on Russia," *Russian Analytical Digest*, No. 157 (December 17, 2014).

44 "Rouble Fall, Sanctions Hurt Russia's Economy: Medvedev," *Reuters World News*, December 10, 2014.

Economic performance has been undoubtedly affected by changes in the oil price and in changes to the steel market. The fluctuating oil price will have had a severe effect on Russia whose dependence on oil exports is high. According to Nasdaq, the price of a barrel of crude oil fell from around \$108 USD in mid-2014 to a low of under \$30 USD by early 2016. Since then it has slowly recovered to about \$70 USD per barrel by mid-2018.^{45,46} Given that many of the designated entities are energy companies, and that (certain exports to) the petrochemical sector are also covered by EU sectoral sanctions, distinguishing between sanctions and oil prices as factors affecting Russian economic performance over the period is problematic.

A similar difficulty applies to steel, more specifically on the effect of the U.S. changing the terms of steel imports. In late 2014, the U.S. terminated the Suspension Agreement which had allowed Russian steel companies to sell steel to the U.S. at prices well below those of domestic producers.⁴⁷ Huge Russian steel companies such as Severstal, Magnitogorsk Iron and Steel Works, and Novolipetsk Steel immediately faced anti-dumping duties as a result. As with oil, the presence of significant market pressures beyond sanctions complicates any attempt at assessing the effectiveness of the sanctions using economic data alone.

The World Bank's figures for the Russian economy as a whole report a slowing of economic growth from 2011 to 2014 and a recession in 2015 and 2016 followed by steady growth since.⁴⁸ The World Bank's figures for Russian gross domestic product follow a similar pattern showing falls from 2013 to 2016 followed by a steady increase that has continued to the present day.⁴⁹ These trends closely shadow the global oil price, suggesting that the latter has been a dominant factor in Russia's economic performance. True, Russia's economy shrank in the two years after sanctions were imposed, but any correlation to the EU or U.S. sanctions regimes against Russia looks entirely coincidental. The slowdown in the Russian economy was already underway before sanctions were introduced, and, even though sanctions have been progressively broadened to cover more entities, the Russian economy recovered in 2017 and 2018.

The relative importance of different factors has been a matter for debate. If Sergey Glazyev's analysis suggests a combination of sanctions and misguided domestic economic policy as the principal risk factors to Russia's economy, Rutland cites figures on the relative impact of sanctions and the oil price. According to Rutland, On November 24, 2014, Russian Finance Minister Anatoliy Siluanov estimated that the sanctions would cost the Russian economy \$40

45 "Stock Market Activity Today," NASDAQ, <<https://www.nasdaq.com/markets/>>.

46 "The World's Largest Oil And Gas Companies 2016: Exxon Is Still King," *Forbes*, May 26, 2016.

47 "Termination of the Suspension Agreement on Hot-Rolled Flat-Rolled Carbon-Quality Steel Products From the Russian Federation, Rescission of 2013-2014 Administrative Review, and Issuance of Antidumping Duty Order," Federal Register, December 12, 2014, <<https://www.federalregister.gov/documents/2014/12/24/2014-30234/termination-of-the-suspension-agreement-on-hot-rolled-flat-rolled-carbon-quality-steel-products-from>>.

48 "GDP Growth: Russia 1990-2017," World Bank, <<https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=RU>>.

49 "Russian Federation," World Bank, <<https://data.worldbank.org/country/russian-federation>>.

billion USD over the course of a year—and the falling oil price another \$100 billion USD.⁵⁰

Figures for trade between Russia and the EU suggest that sanctions have indeed exerted cost, but that these costs have affected the EU as much as they have affected Russia and that the effects have been felt unevenly across the EU.⁵¹ A September 2017 report commissioned by the European Parliament estimates the EU's export losses due to sanctions as \$7.9 billion USD in 2014, \$12.9 billion USD in 2015, and 13.9 billion USD in 2016, amounting to a drop in EU exports to Russia of 11% and an overall loss of about 0.5% from the EU's GDP (although the report acknowledges the difficulty of isolating the effect of sanctions from all other factors).⁵² According to a January 2018 briefing to the European Parliament, the EU sanctions may have cost the Russian economy between 1% and 2% of GDP. At the same time, according to the briefing, the drop in the price of oil caused a 4-5% drop in Russia's GDP.⁵³

Figures from Eurostat (the Statistics Office of the European Union) appear to support the suggestion that the sanctions are eclipsed by other, more important factors. According to Eurostat, in 2014, when the EU introduced its economic measures, imports from Russia to the EU and exports from the EU to Russia had already been falling for three years. They continued to fall for another year before rising in 2016 and 2017. Between 2011 and 2014, imports from Russia dropped from a high of 215 billion euro to 136 billion euro, a drop of 79 billion, or 37%. Following the imposition of sanctions, the rate of fall slowed slightly, recording a drop of 17 billion euro, or 12%. The EU's exports to Russia fell by 40% between 2011 and 2014, continuing to fall slowly in 2015 (by a further 2%).⁵⁴

The same difficulties in interpreting the downturn in EU-Russia trade in 2015 and 2016 apply equally when trying to interpret the recovery in 2017. Russian Foreign Minister Lavrov struck an upbeat note in an address in the margins of the Munich Security Conference in February 2018, claiming that “negative trends in our trade are being gradually rectified. In 2017, the volume of Russian-German trade increased by more than 20 percent and reached USD 50 billion”⁵⁵. The World Bank figures already quoted bear out Lavrov's general point, if not the precise figures, but whether factors other than the oil price are in play is hard to determine.

50 Peter Rutland, “The Impact of Sanctions on Russia,” *Russian Analytical Digest*, No. 157 (December 17, 2014).

51 Francesco Giumelli, “The Redistributive Impact of Restrictive Measures on EU Members: Winners and Losers from Imposing Sanctions on Russia,” *Journal of Common Market Studies*, Vol. 55, Issue 5 (September 2017).

52 Oliver Fritz, Elisabeth Christen, Franz Sinabell, Julian Hinz, “Russia and the EU's Sanctions: Economic and Trade Effects, Compliance and the Way Forward,” European Parliament, September 2017, <[http://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_STU\(2017\)603847](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_STU(2017)603847)>.

53 “Sanctions Over Ukraine: Impact on Russia,” European Parliament, 2018, <[http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/614665/EPRS_BRI\(2018\)614665_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/614665/EPRS_BRI(2018)614665_EN.pdf)>.

54 “Russia-EU – International Trade in Goods Statistics,” EUROSTAT, <https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Russia-EU_%E2%80%93_international_trade_in_goods_statistics#EU_and_Russia_in_world_trade_in_goods>.

55 “Foreign Minister Sergey Lavrov's Opening Remarks at a Meeting with Representatives of Russian and German Business Circles on the Sidelines of the Munich Security Conference,” Munich, February 17, 2018, <http://www.mid.ru/en/press_service/video/-/asset_publisher/i6t41cq3VWP6/content/id/3078634>.

The figures from the report commissioned by the European Parliament appear consistent with Medvedev's 2014 comment – and the line taken consistently by President Putin – that sanctions also hurt those who impose them.^{56,57} It is perhaps a self-evident truth that if trade operates for the benefit of both buyer and seller, it follows that preventing trade will harm both parties. A 2017 study by Francesco Giumelli focused on the costs inflicted on EU Member States by the sanctions on Russia. He found that while all Member States' exports to Russia had fallen since sanctions were imposed, some had lost more than others, with Germany, Italy, and Finland bearing most cost.⁵⁸ There are qualifying factors here. The relative extent of the harm would depend on how easily the seller might find other markets or the buyer other suppliers; and how reliant buyer and seller are on the goods and money, respectively, or on the volume of trade as a percentage of their economy.

The overall trade figures are useful as a measure of the effects of sanctions on the Russian economy as a whole (as well as on its EU trading partners). However, the Russian economy is unusual in respect of the dominant role that energy and other commodities play in it. Within these sectors Russia has some enormous companies, and these companies are, by and large, close to the Russian government. In assessing how far the Russian state may have been affected by the sanctions, it is useful therefore to examine how these huge energy and commodity companies are faring. The June 2018 edition of the Forbes Global 2000 list suggests that many of Russia's largest companies, despite being designated in sanctions, are continuing to prosper.⁵⁹ The list below lists all twelve Russian companies named on any of the sanctions listings which occur in the Forbes Global 2000 list.

- *Gazprom* is one of the world's largest suppliers of natural gas. It is majority-owned by the Russian government and was subjected to selective U.S. sanctions in September 2014. Its position on the Forbes Global List is almost unchanged in 2018 (43rd place) over 2017 (40th place).
- *Sberbank* is Russia's largest bank, state-owned, and named as providing material support to Russian officials designated for involvement in Ukraine. The U.S. imposed sanctions on it in September 2014. On the Forbes List, Sberbank rose from 56th place in 2017 to 47th place in 2018.
- *Rosneft* is one of Russia's biggest oil companies. It was subjected to a transactions ban by the U.S. in July 2014 and further U.S. sanctions in September 2014. It is also specifically named under EU restrictive measures and is designated by Canada, Australia, and others. Since imposition of sanctions, its position on the Forbes Global

56 "Rouble Fall, Sanctions Hurt Russia's Economy: Medvedev," *Reuters*, December 10, 2014.

57 Oliver Fritz, Elisabeth Christen, Franz Sinabell, Julian Hinz, "Russia and the EU's Sanctions: Economic and Trade Effects, Compliance and the Way Forward," European Parliament, September 2017, <[http://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_STU\(2017\)603847](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_STU(2017)603847)>.

58 Francesco Giumelli, "The Redistributive Impact of Restrictive Measures on EU Members: Winners and Losers from Imposing Sanctions on Russia," *Journal of Common Market Studies*, Vol. 55, Issue 5 (September 2017).

59 The 2018 version of the Forbes Global 2000 list was published on June 6, 2018. It takes into account sales, profits, assets and market value. See "Global 2000: The World's Largest Public Companies," *Forbes*, June 6, 2018.

2000 list has been 59th (2015), 75th (2016), 82nd (2017), and 73rd (2018).

- *Lukoil* is another of Russia's biggest oil companies. It was subjected to a transactions ban by the U.S. in July 2014 and further U.S. sanctions in September 2014. It is also specifically named under EU restrictive measures. On the Forbes Global 2000 list the company has risen from 129th place in 2017 to 98th in 2018.
- *Surgutneftegas*, like Rosneft and Lukoil, is a huge petrochemical company, designated by the U.S., EU, and others. On the Forbes Global 2000 list the company fell from 305th place in 2017 to 335th in 2018.
- *VTB Bank* is subject to sanctions by the EU, U.S., and Japan. On the Forbes Global 2000 list the company was almost unchanged in 2018 (396th place) from 2017 (397th place).
- *Novatek*, like Rosneft, was subjected to a transactions ban by the US in July 2014, but has not been designated under the EU's restrictive measures. On the Forbes Global 2000 list the company was almost unchanged in 2018 (551st place) from 2017 (542nd place).
- *Transneft* is another large energy company sanctioned by the EU, U.S. and others. Its position on the Forbes Global list was almost unchanged in 2018 (667th place) from 2017 (658th place).
- *Severstal* is a huge steel company. Its owner, Aleksei Mordashev, was included on the U.S. sanctions list in 2018. Its position on the Forbes Global list was almost unchanged in 2018 (982nd place) from 2017 (1022nd place).
- *Magnitogorsk Iron and Steel* was not subjected to sanctions but targeted by the U.S. termination of the Suspension Agreement in late 2014, which had waived anti-dumping tariffs. Its position on the Forbes Global list rose in 2018 (1214th place) from 2017 (1320th place).
- *Polyus*, a major gold producer, was included on the U.S. sanctions list in April 2018. In June 2018, it entered the Forbes Global 2000 list for the first time, at position 1552.
- *The United Aircraft Corporation* is a state-owned corporation sanctioned by the EU, U.S., and others. Its position on the Forbes Global list was almost unchanged in 2018 (1822nd place) from 2017 (1833rd place).

This is clearly only a partial picture. Many of the Russian entities and individuals designated by the U.S., the EU and others do not make the Forbes Global 2000 list, so their ranking and performance are not recorded using the Forbes criteria. Also, there is no context for the performance of a company, so its rise or fall may be due to factors unrelated to sanctions. However, what the list does suggest is that, to date, the effect on the major oil and gas companies is minimal, and that therefore, due to the oligarchic nature of the Russian state, the effect on the Russian government is also minimal.

Licensing figures offer a slightly different window onto the trade picture. They are useful in giving at least an indirect indication of the flows of dual-use and controlled goods to Russia. Figures published by the UK's Department of International Trade (DIT) show that 228 export license applications from the UK to Russia were refused between 2014 and 2017 compared to

just eight refusals in the years 2010 – 2013.⁶⁰ The reasons for each refusal are not published, but it is fair to assume that the UK's adherence to the EU's restrictive measures on Russia has contributed to the sharp increase. While this indicates a strong adherence to the EU's measures in support of Ukraine, overall trade figures suggest that the UK and Russia have not been significant trading partners. According to the DIT's *UK Trade in Numbers* report, Russia does not make the UK's top 20, either as an importer from the UK, or exporter to it in 2016 and 2017.⁶¹ The UK's lack of dependence on Russian energy explains this, but also somewhat simplifies the statistics, arguably making it easier to discern a sanctions effect – one that is presumably mirrored across the EU, but in many cases may be obscured by energy trade.

The conclusion from these trade figures appears to be that economic sanctions are having an effect on trade with Russia, and on the Russian economy, but the effect of sanctions is probably much less than other factors unconnected with sanctions, in particular the price of crude oil.

This conclusion has several ramifications. First, Russia has been relatively unaffected by the sanctions. Therefore, as the EU linked the economic sanctions to the full implementation of the Minsk Agreements, it is hardly surprising that the measures have failed to deliver. Second, while the sanctions continue at their current level, their imposers cannot expect their effect to change anytime soon. Third, if the EU is serious about wanting the Minsk Agreements implemented, it must look for more effective measures. Fourth, the dominance of energy products in Russia – EU trade, and the fact that Russian exports of energy to the EU are not covered by sanctions, limit the sanctions' capacity to "bite."

The U.S. sanctions, because they leverage access to the U.S. dollar, and because of their extraterritorial reach, are more global in effect than those imposed by the EU or other actors. In other words, they are designed to affect the worldwide fortunes of designated entities rather than just trade between, say, Russia and the EU. This article has been unable to find any figures that isolate and quantify the effects of the U.S. measures alone. Nevertheless, comments by analysts suggest there are signs of growing effectiveness. Writing for the *Financial Times* in April 2018, Tom Keatinge, the Director of Royal United Services Institute's (RUSI) Center for Financial Crime and Security Studies, assessed that the effects of the latest round of U.S. designations would be extensive. Shares in the newly-designated Aluminum giant Rusal had fallen 50% in a week and the Russian stock market as a whole had slipped by 10%. Globalization had meant that Russian banks, companies and oligarchs were dangerously exposed to the U.S. dollar. Moreover, the extraterritorial reach of the sanctions (thus applying "secondary sanctions" to anyone worldwide knowingly acting on behalf of the designated entities) would discourage banks and companies, whether U.S. or not, from any business that could be linked to designated entities.⁶²

60 The DIT's published figures are available here: "Annual Reports," Department of International Trade, <<https://www.gov.uk/government/collections/strategic-export-controls-licensing-data#annual-reports>>.

61 The full report can be found here: "UK Trade in Numbers," UK Department of International Trade, <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/714346/180606_UK_Trade_in_Numbers_full_web_version.pdf>.

62 Tom Keatinge, "This Time, Sanctions on Russia are Having the Desired Effect," *Financial Times*, April 13, 2018.

In Keatinge's analysis, fear of punitive action by U.S. authorities contributes strongly to the pressure the U.S. is able to exert. Responsibility for compliance rests on companies themselves, so is likely to have a deterrent effect. Law firm Gibson Dunn, in its April 2018 advisory, points to the difficulties of extricating one's business from involvement with designated entities; "It is unclear how companies that seek to be compliant with OFAC regulations will navigate a world in which Rusal has been a primary or secondary supplier."⁶³

The effects of the "50% rule" operated by the U.S. Treasury Department's Office of Foreign Assets Control (OFAC) compound the risk, and thus the deterrence factor. As previously noted, the 50% rule was modified in 2014 to include entities 50% owned by multiple SDN-listed entities collectively.⁶⁴ However, opacity of ownership structures in Russia makes applying the regulation challenging for companies and authorities alike, as sanctioned entities dilute or transfer ownership.

Other studies draw a distinction between short-term and long-term effects. Writing in the *Washington Post* in August 2018, Anton Troianovski considered that "sanctions are already crippling Russia's long-term economic prospects. But in the short term, it is far from certain that even the implementation of tougher measures could provoke a crisis severe enough to have a serious impact on Russian politics."⁶⁵ According to Fitch Ratings reported by Reuters in April 2018, the new round of U.S. sanctions against Russia would have a "severe effect" on targeted companies and will limit Russia's potential economic growth."

Only one case has been reported so far of secondary sanctions being imposed by the U.S. with respect to Russia – the designation on September 20, 2018 of the Chinese entity Equipment Development Department and its director, Li Shangfu, for "engaging in significant transactions with Rosoboronexport, Russia's main arms export entity, which is on the LSP [List of Specified Persons]."⁶⁶ Using the number of secondary designations as a measure of sanctions effectiveness is problematic, however, as it does not take into account the deterrent effect, namely overlooks the primary goal of the legislation as being to encourage compliance rather than designate wrongdoers.

Despite the difficulty of reaching an empirical assessment of the effects of the U.S. sanctions on Russia, some specific conclusions seem clear. First, the designated entities are denied access to the U.S. dollar, which is the international standard for commodity trading, as well as the world's dominant currency in all international trading, so Russian commodity companies are likely to be hit hard. Second, even if the effects are hard to quantify, the measures exert a

63 "Trump Administration Imposes Unprecedented Russia Sanctions," Gibson Dunn, April 12, 2018, <<https://www.gibsondunn.com/trump-administration-imposes-unprecedented-russia-sanctions/>>.

64 "Revised Guidance on Entities Owned by Persons whose Property and Interests are Blocked," OFAC, August 13, 2014, <https://www.treasury.gov/resource-center/sanctions/Documents/licensing_guidance.pdf>.

65 "Russia Keeps Getting Hit with Sanctions. Do They Make a Difference?," *Washington Post*, August 22, 2018.

66 "Statement of Assistant Secretary Marshall Billingslea Before the U.S. House Financial Services Subcommittee on Monetary Policy and Trade," U.S. Department of Treasury, September 26, 2018, <<https://home.treasury.gov/news/press-releases/sm496>>.

powerful deterrent influence, leading to a risk of “over-compliance.”

Sanctions Evasion

Throughout the history of sanctions, one of the classic impediments to effective implementation has been sanctions evasion. In the case of North Korea, for instance, the United Nations Panel of Experts reports extensively on instances of North Korean sanctions evasion⁶⁷. In the case of the sanctions on Russia, little information seems to be available. The Austrian Institute for Economic Research (WIFO), by showing how EU food exports to Belarus, and food exports from Belarus to Russia, have uniformly grown since Russia imposed counter-sanctions on EU food products, points convincingly towards sanctions evasion in the food sector.⁶⁸ Beyond food, though, the picture is less clear, for instance on whether dual-use goods from the EU are being diverted to Russia through third countries. It would not be surprising to find cases, for instance, where deep-sea oil and gas exploration and extraction equipment is no longer sold to a former Russian customer, yet a new customer has emerged for similar goods in a third country. Nor is there often any indication of whether designated entities are operating through front companies or have altered their ownership arrangements.

Clearly an accurate view of the effectiveness of sanctions is incomplete without a reliable assessment of the extent of sanctions evasion. The absence of any equivalent body to the UN Panel of Experts set up to oversee the implementation of sanctions must contribute to the difficulty of ascertaining whether, or how much, such sanctions evasion might already be occurring.

Unless or until information becomes available suggesting significant sanctions evasion by Russia, there seems limited benefit to increasing enforcement in this area. One might argue, however, that it would only be by establishing a Panel of Experts that an investigation of such activity could be attempted. Portela argued for the EU to set up its own panels of experts, for continuous monitoring of the effects of sanctions, and to inform any adjustments to improve performance and minimize the humanitarian costs.⁶⁹ An equally important function of such a panel would be to investigate and report sanctions evasion by shedding light on cases, individuals, networks, and methodologies. One might go further than Portela to argue that, in this unique case, the impossibility of acting through the UN makes the case for a collaborative effort among the principal actors, particularly the U.S. and the EU.

67 See for instance the Panel of Experts report, which may be found at: “Panel of Experts’ Final Report under Resolution 2276,” United Nations, February 2017, <<https://www.securitycouncilreport.org/un-documents/document/s2017150.php>>.

68 Oliver Fritz, Elisabeth Christen, Franz Sinabell, Julian Hinz, “Russia and the EU’s Sanctions: Economic and Trade Effects, Compliance and the Way Forward,” European Parliament, September 2017, <[http://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_STU\(2017\)603847](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EXPO_STU(2017)603847)>.

69 Clara Portela, “The EU’s Use of Targeted Sanctions: Evaluating Effectiveness,” CEPS Working Document No 391, March 2014, p 50.

Challenges Facing Western Countries in Applying Pressure to Russia

It may be argued that the focus on the economic effects risks reducing the analysis to the “pain-gain equation.” However, cost-benefit analyses look beyond the economic factors, acknowledging that costs and benefits, pain and gain, are not limited to money. As previously noted, the sanctions on Russia are unusual in that they target a significant economic, political, and military power. In crude terms, this means that Russia is more able than other targets of sanctions to inflict costs and pressures of its own. This section will attempt to outline these pressures as they apply to each significant actor.

Before looking in more detail, the pressures can be summarized as follows:

- Ukraine: Dependence on energy and transit revenues
- U.S.: Requires Russian cooperation on highest foreign policy and global security priorities such as North Korea and Syria.
- European Union: Energy dependence
- Japan: Disputed Kurile Islands, and desire for WWII peace treaty
- European Union: Energy dependence

Ukraine-Russia relations are too vast a subject to cover here. However, in terms of Russian counter-pressure, Ukraine is still a large importer of Russian oil products (although it has achieved independence from Russia in its gas supplies).⁷⁰ Transit fees for Russian gas earned Ukraine 3 billion USD in 2017, according to Andriy Kobolev, Chief Executive of Naftogaz (revenues that are threatened by the planned Nordstream-2 pipeline, which will allow Russian supplies to bypass Ukraine).⁷¹

The U.S.-Russia relationship is more complex still. In terms of Russian counter-pressures, the U.S. has little economic dependence on Russia, so no pressure can be applied there. However, it is difficult to see progress on other high-priority foreign policy objectives such as the denuclearization of North Korea without active collaboration between the U.S. and Russia.

Figures published by the United States Census Bureau indicate that total trade between the U.S. and Russia was around 24 billion USD in 2017 with similar figures for 2015, 2016, and 2018. These are dwarfed by U.S. trade figures with other trade partners (the trade between the U.S. and the UK, for instance, was around USD 110 billion in 2017, according to the same source).⁷² The point has already been made that the U.S. sanctions, by denying access to the U.S. dollar, are global in intent and effect, rather than intended to target U.S.-Russia trade, and the trade

70 Wojciech Kononczuk “A Dangerous Energy Policy: Ukraine, Despite War, is Making Itself Dependent on Russian Oil,” *EnergyPost.eu*, September 8, 2017, <<http://energypost.eu/15647-2/>>.

71 Andreas Walstad “Ukraine Eyes \$3 bln for Russian Gas Transit in 2017,” *Natural Gas Daily*, November 28, 2017.

72 “Foreign Trade” is “the official source for U.S export and import statistics.” Information can be found at “Trade in Goods with Russia,” U.S. Census, <<https://www.census.gov/foreign-trade/balance/c4621.html>>.

figures appear consistent with a model whereby Russian companies are integrated into global supply chains and finance yet do not necessarily have strong bilateral trade with the U.S. The economic effect of sanctions for the U.S. therefore appears minimal, thus it is not a source of counter-pressure by Russia. Counter-pressure can only be applied in areas where the U.S. needs Russian cooperation.

For Japan, the complication comes in the form of the Kurile Islands, currently under Russian control, but over which Japan claims sovereignty; and the signing of a peace treaty formally ending WWII hostilities. According to press reporting around the summit meeting between Russian President Vladimir Putin and Japanese Prime Minister Shinzo Abe in September 2018, both Abe and Putin say they want a solution to the disputes. Abe is reported to have said that a deal would unlock trade and investment from Japanese companies for Russia.⁷³

This is not to suggest that Japan would unilaterally break the sanctions, more to demonstrate that, for Japan, the bargaining power of the sanctions is used, at least in part, for the pursuit of its own agenda; to demonstrate also how hard it is for a country to apply pressure in one area when it is itself under pressure in another. In terms of counter-pressure from Russia, Putin's recent hint that he is ready to sign a peace treaty played on Abe's preoccupation with the issue throughout his time in office, and demonstrates Russia's position of strength, and Japan's corresponding weakness, on both the Kurile Islands and the peace treaty. This may explain why Japan has tried so hard to normalize relations with Russia - in 2016 Japan became the first G7 country to grant Putin a state visit since Russia's annexation of Crimea.

For the EU, the obvious source of Russian counter-pressure comes as a result of the gas and oil it supplies to the EU. Figures from Eurostat (the Statistics Office of the European Union) provide the following key points:

In 2017, over three quarters of EU imports of goods from Russia were energy products, comprising crude and refined petroleum, natural gas, and coal. Also in 2017, Russia was the fourth-largest partner for exports from the EU. Germany and the Netherlands were the EU's largest trading partners with Russia. Countries on the EU's eastern border relied most on imports from Russia (Finland 46%, Lithuania 43%).⁷⁴

For many years Russia has been the EU's largest supplier of natural gas and crude and refined petroleum. In 2017, the EU imported 37% of its natural gas from Russia and 30.9% of its petroleum oils. In terms of the quantity of energy products bought from Russia, the amount remained steady between 2011 and 2017, while the cost of it fluctuated as a result of global prices. The table below shows the quantities and costs of Russian energy supplies to the EU

73 President Putin reportedly turned to Japanese Prime Minister Abe on the conference stage and offered to sign a peace treaty by the end of 2018. See "Russia's Putin tells Japan's Abe: 'Let's sign peace deal this year'," *Reuters*, September 12, 2018.

74 "EU and Russia in World Trade in Goods," EUROSTAT, <https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Russia-EU_%E2%80%93_international_trade_in_goods_statistics#EU_and_Russia_in_world_trade_in_goods>.

between 2011 and 2017.⁷⁵

Year	2011	2012	2013	2014	2015	2016	2017
Quantity of energy products bought from Russia by the EU (million tons)	315.0	310.9	313.3	288.1	290.0	310.9	324.5
Value of energy products bought from Russia by the EU (billion euro)	138.2	149.6	140.2	114.1	81.7	69.7	86.5

The EU's dependence on Russian oil and gas, and, mutually, Russian dependence on the EU as a major market for its oil and gas, go beyond a merely transactional relationship. The economic interdependency expresses itself across several long-term projects:

- Several gas pipelines supply Russian natural gas to the EU;
- EU commodity traders as major buyers of Russian oil;
- Major joint ventures, such as the GAZ-VW project to build German cars in Russia.

The EU's reliance on Russia for its energy security has been a concern for the EU long before the Ukraine crisis shone a spotlight on the risks of relying for one's energy supplies on a country that is prepared to violate international law. A 2011 communication from the European Commission to the European Parliament urged the EU to diversify its supply by engaging with the Caspian and Middle East regions and assisting suppliers such as Azerbaijan, Turkmenistan, Iraq, and Central Asian countries. A further point that "the EU must also work to establish a tri-partite cooperation at political and administrative level with Russia and Ukraine to ensure stable and uninterrupted gas supplies through the Eastern Corridor" indicates how important the issue of stability of Russian supply had already become.⁷⁶ Today, many EU Member States remain largely or totally dependent on Russian natural gas.

Despite calls for diversification of supply, the EU may be increasing its long-term reliance on Russia. Nowhere is this more evident than the Nord Stream 2 gas pipeline project. The project, which will double the capacity of the existing Nordstream gas pipeline to approximately 30% of EU gas demand, has been given German government approval to proceed.

75 "Main Suppliers of Natural Gas and Petroleum Oils to the EU," EUROSTAT, <https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_imports_of_energy_products_-_recent_developments#Main_suppliers_of_natural_gas_and_petroleum_oils_to_the_EU>.

76 "Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions - On Security of Energy Supply and International Cooperation - "The EU Energy Policy: Engaging with Partners beyond Our Borders," European Commission, COM/2011/0539, November 7, 2011, <<https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0539:FIN:EN:PDF>>.

Nord Stream 2 was criticized by Donald Tusk, President of the European Council, in 2016, as running counter to the EU's objectives of energy diversification and reducing dependency.⁷⁷ It is interesting that Tusk's criticism made no mention of any potential inconsistency between Nord Stream 2 and the economic sanctions against Russia. Yet inconsistencies there clearly are: first, Nord Stream 2 will allow Russia to avoid paying transit fees to Ukraine. This means cheaper gas to Europe, of course, but weakens Ukraine still further, and is hardly an expression of EU support for Ukraine. German Chancellor Merkel's statement on April 10, 2018 that the issue of gas transit across Ukraine must be resolved before Nordstream 2 could proceed appeared to be an attempt to address that contradiction.⁷⁸ Second, the potential increase in the already huge energy trade reduces ever further the proportion of EU-Russia trade affected by the sanctions. Third, Russia's considerable revenues from its sales to the EU and the long-term prospects for more make the coercive, constraining, and signaling aspects of the sanctions all look somewhat ineffectual, even irrelevant. Fourth, and most worrying, energy is not just about trade, it is part of critical infrastructure. Russia has repeatedly cut off gas supplies to Ukraine. Proponents of Nord Stream 2 argue convincingly that by increasing supply options, the EU is improving its energy security but this does not address the EU's dependence, the huge revenues flowing to Russia, or the long-term relationship that might eclipse any efforts by the EU to exert pressure through restrictive measures.⁷⁹

One might make much of U.S. President Trump's remarks to NATO Secretary General Stoltenberg in July 2018.⁸⁰ Equally one may find countless claims that dismiss both Trump's words and U.S. threats of sanctions against Nord Stream 2 as an ill-concealed attempt to influence the market in favor of U.S. supplies of Liquefied Natural Gas. There are points to be awarded on all sides, but the key points from the EU's energy relationship with Russia, as relevant to the sanctions, are as follows:

- The EU and its U.S. ally are divided over the virtues of the EU's present and future dependence on Russia for oil and gas;
- The scale of trade in oil and gas dwarfs any effects economic sanctions might have;
- Several gas pipelines supplying Russian natural gas to the EU. Energy security considerations prompted the EU to set about diversifying its supply. Even if one views such a stance as alarmist (arguing that Russia is as dependent on the EU as a customer as the EU is on Russia as a supplier) the close inter-dependency relies on a long-term collaboration that looks inconsistent with the EU's restrictive measures.
- Contradictory signals - the sectoral sanctions target the very sector where Europe is

77 "Tusk: Nord Stream II Doesn't Help," *EU Observer*, December 18, 2015.

78 "Merkel Casts Doubt on Nord Stream 2 Gas Pipeline," *DW*, April 10, 2018.

79 "Nord Stream 2," <<https://www.nord-stream2.com/>>.

80 "It's very sad when Germany makes a massive oil and gas deal with Russia where we're supposed to be guarding against Russia and Germany goes out and pays billions and billions of dollars a year to Russia," Trump told NATO Secretary General Stoltenberg. Although the remarks were made in the context of NATO, they describe very well the duality of EU-Russia relations, a duality that affects the EU's ability to impose meaningful sanctions. See "Angela Merkel Hits Back at Donald Trump at Nato Summit," *The Guardian*, July 11, 2018.

dependent on current and future supply – oil exploration.

How Serious are the Imposers of Sanctions on Russia?

The inconsistencies described above make it appropriate to rephrase the earlier question on the Minsk Agreements. It is not just a question of whether the EU or its partners consider Russian implementation of the agreements to be realistic, but more whether they want implementation at all. This would be a much less charitable interpretation of the “signaling” function of sanctions, in which they are seen as a stunt rather than a signal; a scenario in which, for instance, an EU Member State might signal solidarity with its EU partners and show appropriate disapproval for violations of international law, yet at the same time make it clear to Russia that nothing is the matter. Germany’s pursuit of Nord Stream 2, and Japan’s attempts at winning Russian cooperation on the Kurile Islands, look like much stronger signals of support for Russia than the ostensible solidarity with Ukraine expressed through the medium of sanctions.

The implication of hypocrisy is unfair as it overlooks the genuine difficulty of exerting pressure on a powerful country with which one has, and must continue to have, a multi-faceted economic and political relationship. It is more realistic, as well as more charitable, to argue that the EU is genuinely aiming for implementation of the Minsk Agreements but is fatally constrained by its dependence on Russia.

As time goes on, this tension must presumably resolve itself in one of several ways. Either the EU will decide that implementation of the Minsk Agreements is both desirable and achievable and will take steps to achieve it. Or the EU will agree to Russia’s map of Ukraine in the stated interests of Europe’s long-term energy stability and political stability with Russia. There are strong arguments, such as those advanced by the Chairman of Germany’s Eastern Committee of the German Economy, Wolfgang Buchele, that it is only through cooperation with Russia that any political settlement can be reached.⁸¹ For now, the Council of Europe can continue to kick the can down the road every six months.

If Imposers are Serious, How Could Implementation Be Improved?

This section takes as its starting point the conclusion from the previous section that the EU is genuinely aiming for implementation of the Minsk Agreements but is fatally constrained by its dependence on Russian energy supplies. Options for further political and diplomatic measures are limited now that Russia has been expelled from the G8, and many Russian diplomats have been expelled by the UK and its allies in response to the Skripal case. Pressure looks possible only through economic means. In Europe, energy policy is central to this: if the EU genuinely

81 Buchele’s reported comments in response to U.S. threats of sanctions against Nord Stream 2 were “We consider the latest turn of the sanctions spiral incomprehensible and damaging. The sprawling catalogue of sanctions is causing increasing uncertainty for all companies that do business with Russia and takes us even further away from a political solution to the conflict with Russia.” This is reported in “Deutsche Wirtschaft empört über U.S.-Sanktionsdrohungen gegen Pipelineprojekt Nord Stream 2,” *Handelsblatt*, July 12, 2018.

wants Russia to implement the Minsk Agreements and considers such implementation to be realistic, the only meaningful economic pressure that the EU can apply is through the energy sector. This will take the form of reducing the EU's dependence on Russian oil and gas, on the one hand, and using Europe's bargaining power as an energy customer on the other. There are several elements to this:

- The supply of liquefied natural gas (LNG) from the U.S. and other suppliers. Some have seen U.S. opposition to Nord Stream 2 as an expression of U.S. commercial self-interest - a U.S. attempt to replace Russian energy with U.S. LNG supplies to Europe.^{82,83} Other analysts see U.S. LNG expansion as the key to reducing Europe's risk-laden dependence on Russian energy. The Three Seas Initiative (3SI) in particular will nullify a specific threat that Nord Stream 2 introduces, namely that Russia might withhold energy from Eastern Europe while supplying it to Western Europe.⁸⁴ In the context of sanctions, the increased supply of U.S. Liquefied Natural Gas would unquestionably shift the coercive balance in favor of the imposing countries;
- Diversification of supply beyond the U.S. would contribute in the same fashion, as well as helping to counter any claim that the U.S. is putting commercial self-interest ahead of any concern about Russian behavior;
- Reduction of the EU's overall fossil fuel energy needs. Germany is at the forefront, with its Energiewende plan for a transition to a low-carbon economy;
- Potential challenges to Nord Stream 2, or at the very least the insertion of some conditionality into this and other existing or future energy projects, concerning implementation of the Minsk Agreement. It seems plausible that to link Nord Stream 2, rather than the EU sanctions, to the implementation of the Minsk Agreement would be rather more likely to achieve Russian implementation. Not only that, it would help dispel uncertainties over how serious EU Member States are about putting pressure on Russia.

Broadening the supply base would give the EU the option to reduce gas and oil purchases from Russia, but whether an impoverished Russian state would be more likely to implement the Minsk Agreements is debatable. On the contrary, there would be every chance of a retaliation. What seems beyond debate, however, is that without at least the option to reduce economic dependence on Russia, the Minsk Agreements, and the sanctions that aim to assist their implementation stand little or no chance of success. Diversifying the EU's energy supplies, and an EU-wide Energiewende, share the common feature that they are only achievable in the longer term. Steps in that direction, however, could be undertaken immediately.

Beyond the EU, where energy dependence is not a factor, stronger implementation would need to take a different form. The concept of targeted sanctions needs to take into account the particular points of vulnerability within the target country. The U.S. rationale for designating several more Russian oligarchs in April 2018 points at a strategy geared specifically at exerting

82 "Opposition to Nord Stream 2 makes no sense for America or Europe," *Financial Times*, August 12, 2018.

83 "Germany and Russia gas links: Trump is not only one to ask questions," *The Guardian*, July 11, 2018.

84 "Trump Is Right on Nord Stream 2," *Wall Street Journal*, July 22, 2018.

influence on an oligarchy.⁸⁵ The extraterritorial reach of U.S. sanctions and U.S. control of access to the U.S. dollar makes this a powerful strategy and one with considerable room for expansion.

Emerging here is a picture in which U.S. sanctions on Russia, by reason of their leverage of access to the U.S. dollar, are relatively, and increasingly, effective, while the sanctions imposed by the EU, for a variety of reasons, are less so. This suggests a potential mismatch in the U.S. and EU positions. If so, there are two implications. First, the Council of Europe should take into account this possible mismatch in its scheduled or unscheduled revisits to the sanctions on Russia. Second, the EU and the U.S. might consider formal collaboration on the sanctions. The impossibility of coordinating these sanctions through the UN has not, so far, led to the establishment of an alternative structure through which to coordinate sanctions efforts.

There are risks to a more concerted implementation effort, and potential for unintended consequences. These may be summarized as follows:

- Retaliation, and not just in kind. Russia is keen to project its power;
- The potential risks to European energy stability (and stability in general) from worsened relations with Russia;
- Trying to bring about an indirect effect, - such as reducing EU dependence on Russian energy in order to exert pressure on Russia to abide by norms of international law, brings with it the risk of attracting a charge of general Russophobia. The measures could no longer be directly targeted at the problem of Ukraine, election interference or the use of chemical weapons on foreign soil, and therefore risk looking more like a general attack on Russia;
- The considerable costs to the EU, felt unevenly across its Member States, of a reduction in trade with Russia;
- Opportunities for other actors to capitalize on weak Russia-EU relations. Within two months of the UN vote condemning Russia's annexation of Crimea, China signed a \$400 billion USD gas deal with Russia.⁸⁶ This allowed Gazprom to reduce dependence on Europe as a market. As Rutland put it, "perhaps the main beneficiary of the sanctions regime is China. The downturn in relations with the West may mean Russia's "turn to the east" is no longer an opportunity but a necessity;"⁸⁷
- The potential growth in corruption, organized crime and sanctions evasion. Sanctions give rise to smuggling and other evasion techniques. Numerous cases are described

85 "The Russian government operates for the disproportionate benefit of oligarchs and government elites." U.S. Treasury Secretary Steven Mnuchin was speaking after the latest round of U.S. sanctions in April 2018. Reports include "U.S. Punishes Key Putin Allies over Worldwide 'Malign Activity'," *BBC*, April 6, 2018.

86 S Lain, "The Significance of the China-Russia Gas Deal," *The Diplomat*, May 24, 2014.

87 P. Rutland, "The Impact of Sanctions on Russia," *Russian Analytical Digest*, No. 157, (December 17, 2014).

in detail by the UN Panel of Experts with respect to North Korea.⁸⁸ Drezner cites the UN's Oil for Food scandal to make the point that sanctions also weaken the rule of law in monitoring organizations.⁸⁹ Currently the information base is too thin to allow any reasonable estimation of how big a role sanctions evasion plays in the case of the sanctions on Russia.

Final Conclusions

Have the sanctions been successful as a tool of coercion? Russia has not implemented the Minsk Agreements nor restored Crimea to Ukraine. There has been no clear positive affect on Russian international behavior. On the contrary, other violations of international law that have occurred since 2014 point to worsening rather than an improvement of relations. However, implementation of the Minsk Agreements may never have been a realistic aim in the short term. The EU may see the sanctions rather as tools of constraint and symbolism.

As a tool of constraint, the sanctions look more successful. Crimean officials deemed complicit in the annexation by Russia are not internationally recognized. No further Russian takeovers of regions with significant Russian populations have occurred.

The sanctions have been used for signaling purposes. EU Member States have demonstrated internal solidarity and the ability to follow a united foreign policy. All imposers of the sanctions have demonstrated solidarity with Ukraine and with those countries that have significant Russian-speaking minorities, as well as support for the norms of international law.

Sanctions have had some effect on trade between Russia and the EU, with effects felt on both sides, and unequally among EU member states. However, the Russian economy appears to have been affected far more strongly by fluctuations in the global oil price than by sanctions. U.S. sanctions may prove more effective than EU ones, in that they inhibit a company's freedom to operate globally.

Running counter to, and fatally undermining, the sanctions is the ongoing need among EU countries for Russian oil and gas. The huge contracts, unaffected by sanctions, dwarf any sanctions-related trade losses, while in signaling terms the steady progress towards future pipeline deals throws into question whether EU Member States' declarations of solidarity with Ukraine can be taken seriously.

Imposers of the sanctions should be in no doubt that their support for the norms of international law justifies the measures taken. However, the practical difficulties of exerting pressure on Russia are immense. Even if the EU is genuinely aiming for implementation of the Minsk Agreements, it is hamstrung by its energy dependence on Russia, or rather, the need to work constructively with Russia in the interests of Europe's energy stability. If the EU is serious

88 See, for instance, the example of the M/V Jie Shun in "Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009)," United Nations, S/2017/150, February 27, 2017.

89 Daniel W. Drezner, "Sanctions Sometimes Smart: Targeted Sanctions in Theory and Practice," *International Studies Review*, Vol. 13, Issue 1 (March 1, 2011), pp. 96–108.

about the Minsk Agreements (or indeed about keeping the Russian state in check in any other respect) it might look to exert pressure through its power as an energy consumer by inserting conditions into any deals with Russia and by reducing dependence.

Sanctions regimes coordinated through the UN, such as those against Iran and North Korea, have benefited from the work of Panels of Experts set up to oversee implementation. As the sanctions on Russia, by necessity, do not involve the UN, principal actors might consider whether establishing a panel or some means of coordination among themselves would assist implementation.



The Once and Future Multilateral Export Control Regimes: Innovate or Die

MICHAEL D. BECK AND SCOTT A. JONES¹

Abstract

As part of their efforts to inhibit states and terrorist organizations from acquiring nuclear, chemical, biological, and advanced conventional weapons, the United States and other countries have taken steps to coordinate export controls that monitor and restrict the flow of dual-use equipment, materials, and technologies. They have established four informal multilateral export control regimes (MECR) that complement and support broader international nonproliferation objectives and treaties. These normative guidelines and technology control lists define public goods, including, for example, much of the practical content for United Nations Security Council resolutions such as 1540 and those targeting Iran and North Korea. Over the last two decades, the international environment has changed rather dramatically thereby posing significant challenges to the regimes. In this new environment, there is a need for the regimes or another multilateral institutions to set the standards of regulation in emerging technology sectors of security concern like nanotechnology, additive manufacturing, or unmanned systems. Yet, at this time, the arrangements are facing an inflection point for reasons of rapid technological change and geopolitical dynamics. The structure of the regimes is ill-suited to deal with these external developments. Therefore, alternative approaches to multilateral export control coordination are necessary to ensure the continued viability of the nonproliferation regime complex.

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Keywords

United States, United Kingdom, Japan, China, dual-use export controls, export control implementation

Introduction

Efforts to prevent proliferation can be characterized in terms of whether they address the demand-side or the supply-side. Demand-side measures seek to reduce the motivations that lead states to seek Weapons of Mass Destruction (WMDs). As an example, states can offer security guarantees in an attempt to alleviate security concerns that might otherwise motivate a country to develop nuclear weapons. Supply-side measures, in contrast, seek to make it harder for weapons development efforts to succeed by restricting access to goods and technologies useful to weapons programs, including dual-use items that can be applied to either commercial or military purposes. One way to limit supply is through export controls.

As part of their efforts to inhibit states and terrorist organizations from acquiring nuclear, chemical, biological, and advanced conventional weapons, the United States and other countries have taken steps to coordinate export controls that monitor and restrict the flow of dual-use equipment, materials, and technologies. They have established four informal multilateral export control regimes (MECRs) that complement and support broader international nonproliferation objectives and treaties. These are the Missile Technology Control Regime, the Nuclear Suppliers Group, the Australia Group, and the Wassenaar Arrangement. To assist Member States to bolster and harmonize their respective national export control systems, the regimes typically develop broad guidelines about the circumstances when states should exercise restraint and lists of items to which controls should be applied. These normative guidelines and technology control lists provide public goods, including, for example, much of the practical content for United Nations Security Council resolutions such as 1540 and those targeting Iran and North Korea.

Over the last two decades, the international environment has changed rather dramatically thereby posing significant challenges to the regimes. First, there are many more suppliers of dual-use and military-significant technology beyond the regime members. These suppliers often seek to fill the supply-gap created by denials from regime members. Second, the rise of legitimate non-state actors (e.g., brokers and facilitators) as important players in connecting buyers and suppliers of controlled technologies across continents has put a premium on timely sharing of specific information among regime members. Third, the illegitimate non-state actors (e.g., terror and insurgent groups) have shown preference for obsolete and/or commercially unviable technologies to achieve their goals. Large portions of the regime control lists might therefore become irrelevant for controlling proliferation. Fourth, evolving strategic considerations have strengthened the demands for extending membership offers to countries that were earlier the targets of regime controls (e.g., China, India, Israel, Pakistan). Finally, the members of the regimes have become less like minded. Some members, like the United States and European Union countries, are now imposing sanctions on Russia and using national export controls to target Russia's efforts to acquire dual-use items despite Russia's participation in three of the four multilateral regimes. Simply put, the regime members have lost their way in achieving consensus regarding what to control, how to control it, and what actors to target.

In this new environment, there is a need for the regimes or another multilateral institution to set the standards of regulation in emerging technology sectors of security concern like nanotechnology, additive manufacturing, or unmanned systems. Yet, at this time, it is the authors' sense that the arrangements are facing an inflection point for reasons of rapid technological change and geopolitical dynamics. The structure of the regimes is ill suited to deal with these external developments.

After a review of the nature of the regimes in general, this article provides a brief background on the origins and operations of each individual export control regime.² Subsequent sections identify, from an evolutionary perspective, the failure of the regime model to adapt to rapidly changing political, economic, and technological environments, challenging the perception that persistence suggests robustness and sustainability. The penultimate section examines regime limitations through a case study of the Missile Technology Control Regime (MTCR). The article concludes by offering alternative approaches to multilateral export control coordination.

The Nature of the Multilateral Export Control Regimes

The multilateral export control system currently comprises four separate supplier-state regimes: the Australia Group (AG), the Missile Technology Control Regime (MTCR), the Nuclear Suppliers Group (NSG), and the Wassenaar Arrangement (WA). In terms of international organization typologies, the MECR constitute informal consultative mechanisms.³ They are intended to supplement the provisions of binding, multilateral treaties primarily focused on the development and possession of weapons technologies, including the 1968 Nuclear Nonproliferation Treaty (NPT), the 1972 Biological Weapons Convention (BWC), and the 1993 Chemical Weapons Convention (CWC). While certain differences exist in the particulars of the regimes, their essential attributes share a great deal of similarity.

As regimes, all four MECRs are informal, non-binding political arrangements. However, the extant literature on international regimes primarily focuses on formal institutions

2 This article does not include a comprehensive examination of national perspectives on the four multilateral arrangements. With 50 governments now participating in at least one of the arrangements and several more adhering to some of the multilateral guidelines, a thorough investigation of all relevant preferences and perceptions would demand a research effort well beyond any conducted in the field so far. For a representative example of national export control system analyses, see Michael D. Beck, Richard T. Cupitt, Seema Galhaut, and Scott A. Jones, *To Supply Or To Deny: Comparing Nonproliferation Export Controls in Five Key Countries* (Amsterdam: Kluwer Law International, 2006). See also Douglas M. Stinnett, Bryan R. Early, Cale Horne, and Johannes Karreth, "Complying by Denying: Explaining Why States Develop Nonproliferation Export Controls," *International Studies Perspectives*, Vol. 13, Issue 3 (August 2011), pp. 308-326.

3 Andrew Latham and Brian Bow, "Multilateral Export Control Regimes: Bridging the North-South Divide," *Canadian Institute of International Affairs International Journal*, Vol. 53, No. 3 (Summer 1998), pp. 465-486.

(e.g., environmental regimes), with almost no coverage of the MECRs.⁴ In one of the few theoretical treatments of the export control regimes, Daniel Joyner categorized them as security communities.⁵ While the security community categorization captures some aspects of the MECR, they do not truly fit the definition. States form a security community when they view the threat or use of force against other members of the community as unthinkable. With their diverse memberships (e.g., participant states having competing and varied conceptions of security), this is not necessarily the case within the MECRs. In a study of the WA, Michael Lipson emphasizes the impact of norms and identities, but does not address the question of how the regime's organization affects cooperation.⁶

The canonical definition of international regimes describes them as “principles, norms, rules, and decision-making structures” developed to guide the behavior of states in particular issue areas.⁷ Regimes vary in terms of how formal or informal they are. In contrast to formally negotiated, treaty-based multilateral institutions, the export control regimes lack official institutions or bureaucracies. They operate instead through annual and semi-annual meetings. The most fundamental components of these regimes are their guidelines and control lists. While some regimes, such as the WA, have secretariats, the *de facto* regime-specific bodies are purely coordinative in function. Nevertheless, the tasks of creating and revising guidelines and control lists require a high degree of collaboration amongst members as decision making procedures are based exclusively on consensus. This informal structure need not be a barrier to effectiveness. Research has found that institutions with an informal character, such as ASEAN, for example, can be productive in other environments involving interest heterogeneity.⁸ However, at the same time, regimes studies do not agree on the necessary and sufficient conditions contributing

4 As noted by Michael Byers, “Regime theorists have not written much about informal rules and procedures. Regime theorists have instead focused on multilateral treaties and international organizations, around or within which informal rules or procedures may develop, but, if they do develop, will fulfill only supplementary roles.” See Michael Byers, *Custom, Power and the Power of Rules: International Relations and Customary International Law* (Cambridge: Cambridge University Press, 1999), p. 26. In addition, the last comprehensive review of the MECR is that of the authors and their cohort at The University of Georgia in the early 2000s.

5 Daniel H. Joyner, “Restructuring the Multilateral Export Control Regime System,” Masters Thesis (Athens: University of Georgia, 2003) and Daniel H. Joyner, “Restructuring the Multilateral Export Control Regime System,” *Journal of Conflict and Security Law*, Vol. 9, No. 2 (2004), pp. 181–211.

6 Michael Lipson, “The Reincarnation of COCOM: Explaining Post Cold-War Export Controls,” *The Nonproliferation Review*, Vol. 6 No. 2 (Winter 1999).

7 Stephen D. Krasner, “Structural Causes and Regime Consequences: Regimes as Intervening Variables,” in Stephen D. Krasner, ed., *International Regimes* (Ithaca: Cornell University Press, 1983), pp. 1-21.

8 In their study of the Association of Southeast Asian Nations (ASEAN), Amitav and Johnston note that “Institutions can still help attain their original goals and induce preference change with informal rules and deliberative mandate.... More informal groups such as ASEAN have had a discernible impact in changing the preferences and norms of their members.” See, Amitav Acharya and Alastair Iain Johnston, “Conclusion: Institutional Features, Cooperation Effects and the Agenda for Further Research on Comparative Regionalism,” in Amitav Acharya and Alastair Iain Johnston, eds., *Crafting Cooperation: Regional International Institutions in Comparative Perspective* (Cambridge: Cambridge University Press, 2007), p. 269.

to institutional viability.⁹

The informal, consultative nature of the export control arrangements, this suggests, does not necessarily circumscribe the degree and type of cooperation amongst members. Even modest, less formal mediums of cooperation or coordination can produce significant results in international affairs.¹⁰ After a brief historical review of each regime, the article will examine the patterns of cooperation within the MTCR in greater detail. Because the four regimes are similar, patterns observed in the MTCR should be typical of those in the other MECRs.

The Evolution of Supply-Side Controls

Following World War II and the commencement of the Cold War, the United States and a number of its allies formed the Coordinating Committee on Multilateral Export Controls (COCOM) with the intention of ensuring that trade with the Soviet Union and its allies did not enable the Soviet bloc to gain access to militarily-relevant technology.¹¹ In many respects, COCOM served as the model for the subsequent dual-use supplier regimes. The *Coordinating Committee* (emphasis added) sought to coordinate the export control policies of the member countries with respect to specific goods identified on COCOM lists, to resolve differences of interpretation, and to provide for exceptions to the controls.¹² COCOM decisions were made on the basis of unanimity. Because COCOM had no official treaty status, member countries were left to enact legislation consistent with the COCOM's goals at their discretion and provide for its enforcement unilaterally. Although a voluntary, informal organization, COCOM did have a way to make collective decisions regarding specific strategic exports to Communist bloc countries, a function absent from the current multilateral export control regimes. Through the COCOM Secretariat based in Paris, COCOM members could veto proposed exports of any member country.

U.S. leadership played a decisive role in the establishment and continued cohesion of COCOM.¹³ Tensions sometimes arose between Western European countries and the United States, for

9 As noted by Poteete and Ostrom, "Despite considerable progress in identifying factors that affect the prospects for collective action, no consensus exists about the role played by heterogeneity and size of group." See AR Poteete and E Ostrom, "Heterogeneity, Group Size and Collective Action: The Role of Institutions in Forest Management," *Development and Change*, Vol. 35, Issue 3 (June 2004), pp. 435-461.

10 Kenneth W. Abbott and Duncan Snidal, "Why States Act through Formal International Organizations," *Journal of Conflict Resolution*, Vol. 42, No. 1 (February 1998), pp. 3-32, p. 11.

11 For a good history and evaluation of COCOM's impact, see Gary K. Bertsch, *East-West Strategic Trade, COCOM and the Atlantic Alliance* (Paris: Atlantic Institute for International Affairs, 1983).

12 For details, see Richard T. Cupitt, "The Future of CoCom," in Gary K Bertsch and Steven Elliott-Gower, eds., *Export Controls in Transition: Perspectives, Problems and Prospects* (Durham, N.C.: Duke University Press, 1992), p. 235.

13 To persuade its allies to participate in COCOM, the United States and specifically the U.S. Congress established sanctions in the Cannon Amendment to the Supplemental Appropriations Act of 1951 and, more importantly, in the Mutual Defense Assistance Control Act of 1951, more commonly known as the Battle Act. See Gary K. Bertsch, "U.S. Export Controls," in Gary K. Bertsch and John R. McIntyre, eds., *National Security and Technology Transfer* (Boulder, CO: Westview Press, 1983), p. 127.

example regarding the political benefits to be expected from expanded trade with Eastern Europe, but COCOM members were able to adapt the organization so it kept functioning. These periodic tensions and COCOM's singular focus on the Soviet bloc explain in part why the United States pushed for the creation of new WMD-focused MECRs separate from COCOM.¹⁴

The predominant nonproliferation approach of the 1960s involved arms control initiatives, the overarching achievement of which was the Nuclear Nonproliferation Treaty of 1968. The NPT contained provisions intended to address both the supply and demand sides of proliferation. The challenges of dealing with the supply dimensions of proliferation, however, were only starting to become clear in the late 1960s/early 1970s. When India detonated a so-called peaceful nuclear detonation in 1974, using plutonium obtained from a Canadian-supplied nuclear reactor, the shock shifted global nonproliferation attention to the problem of supply.

Prior to the Indian test, in 1971, a group of seven NPT nuclear supplier nations formed the Nuclear Exporters Committee, known as the Zangger Committee (after its first chair), to flesh out how to implement certain rules for nuclear trade contained in Article III of the NPT.¹⁵ The objective of the Committee was to reach a common interpretation of the obligations stemming from Article III in terms of what can legally be exported to countries that are not parties to the treaty. In 1974, the Zangger Committee compiled the first ever "trigger list" of nuclear export items that could be potentially useful for military applications of nuclear technology.¹⁶

India's 1974 test, along with efforts among other non-nuclear weapon states such as Argentina and Brazil to develop a complete nuclear fuel cycle, led to heightened concern among supplier states regarding nuclear proliferation. In 1975, a group of nuclear supplier states (Canada, France, Japan, West Germany, the Soviet Union, the United Kingdom, and the United States) met in London with the purpose of supplementing the Zangger Committee's work in the field of nuclear export controls. Over successive meetings, this group became known unofficially as the "London Club," and, in 1978, officially as the Nuclear Suppliers Group. While the Zangger list initially included only nuclear materials and components used directly in weapons development, the NSG adopted more restrictive export control guidelines that included some dual-use items.¹⁷ The guidelines also required the provision of physical security for

14 Frank M. Cevasco, "Survey and Assessment: Alternative Multilateral Export Control Structures," Working Paper No. 3, Study Group on Enhancing Multilateral Export Controls for U.S. National Security (Washington, DC: The Henry L. Stimson Center/CSIS, 2001).

15 Article III, section 2, of the NPT states that "Each State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear-weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this Article." The Zangger Committee was formed to figure out how to implement the provisions of Article III. See <<http://www.zanggercommittee.org/Zangger/default.htm>>.

16 The nuclear suppliers agreed that the transfer of items on the list would "trigger" a requirement for International Atomic Energy Agency (IAEA) safeguards on those items to ensure that they would not be used to make nuclear explosives. The Zangger list included reactors, reactor components, and certain nuclear materials such as heavy water.

17 In particular, because uranium enrichment and spent fuel reprocessing to extract plutonium can be used to make both nuclear fuel for reactors and nuclear materials for a bomb, the NSG guidelines called for suppliers to exercise restraint regarding transfers of enrichment and reprocessing technology.

transferred nuclear facilities and materials, acceptance of safeguards on replicated facilities, and prohibitions against retransfer of nuclear exports to third parties.¹⁸ Importantly, in contrast to the Zangger Committee, the NSG guidelines would apply to potential exports to members of the NPT and not only to non-parties. The NSG guidelines on nuclear exports were first published only in 1978.

From its inception, the NSG sought to emphasize its informal, non-binding nature. While clearly a result of perceived imperfections in the nonproliferation regime to date, the NSG was at pains to minimize the appearance of excessive controls on nuclear technology that could undermine the right to develop peaceful uses of nuclear energy established in Article IV of the NPT or reduce the prospects for economic development and free trade.¹⁹ After formulating the guidelines on nuclear transfers, the members of the NSG did not openly institutionalize cooperation among themselves and did not convene as a group until 1991, when they met in response to the exposure of Iraq's clandestine efforts to acquire WMD. Because Iraq had built much of its nuclear program through imports of dual-use items not covered on existing trigger lists, the NSG in 1992 adopted a new, second set of *Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Material and Related Technology*.²⁰

During the NSG's interregnum, two more supplier regimes emerged: the Australia Group (AG) and the Missile Technology Control Regime (MTCR). Largely in response to the documented use of chemical weapons during the Iran-Iraq War, the AG was established in 1985 to prevent any contribution to chemical and biological weapons programs through the inadvertent supply of chemical precursors, biological agents, and related dual-use equipment.²¹ The participating governments in this regime agree to common guidelines for chemical and biological export licensing. Although the AG is concerned with regulating trade in chemical and biological

18 Because the discussions in the NSG were not directly associated with the text of the NPT, participating states were able to take a more flexible and extensive approach to developing a list of items subject to agreed guidelines. Furthermore, in contrast to the Zangger Committee controls, the NSG Guidelines apply to transfers to all non-nuclear weapon states, not just those outside the NPT. See, D. Fischer, "The London Club and the Zangger Committee: How Effective?," in K. Bailey and R. Rudney, eds., *Proliferation and Export Controls* (Lanham, Md.: University Press of America, 1993), pp. 39–48.

19 Critics have charged that preventing development and economic competition is actually the goal of the export control regimes. Indian scholar Brahma Chellaney, for example, has argued that "The non-proliferation policies of Western powers are founded on a strategy of preventing Third World development of technologies that might impinge on the Western powers' military and economic interests." See Brahma Chellaney, "An Indian Critique of U.S. Export Controls," *Orbis*, Vol. 38, Issue. 3 (Summer 1994), pp. 439–456.

20 In 1992, the NSG participants also issued a statement in which they declared that full-scope safeguards would be required as a condition for future transfers. See, Carlton E. Thorne, ed., *A Guide to Nuclear Export Controls 1999–2000*, second edition (Burke, VA: Proliferation Data Services, 1999).

21 The AG focused initially just on chemical weapons but later expanded its scope to include biological weapons. After the ratification of the Chemical Weapons Convention (CWC) in 1995, the Organization for Prohibition on Chemical Weapons (OPCW) was established. It is charged with the implementation of export control and verification protocols of the CWC. AG members now view the institution as aiding their efforts to meet obligations under the CWC of 1993 and the Biological and Toxin Weapons Convention (BTWC) of 1972.

weapon articles, it also seeks to ensure that legitimate trade is not inhibited.²²

U.S. concerns regarding the proliferation of space-launch capabilities and a series of events in the late 1970s and early 1980s, including a South Korean ballistic missile test in 1978 and India's successful launch in July 1980 of its Satellite Launch Vehicle (SLV)-3, prompted negotiations on a missile control consortium. These culminated in the establishment on April 16, 1987 of the Missile Technology Control Regime (MTCR) and the release of its guidelines. The United States had been the first to conceive of missiles as a proliferation problem and had unilaterally implemented some export controls in the early 1980s.²³ Until this point, efforts to limit delivery means for WMD had been confined to arms control negotiations between the United States and the Soviet Union. The concern that other states – particularly in the developing world – could wed the growing availability of ballistic missile technology with nuclear weapons prompted U.S.-led efforts to coordinate supply-side controls. In 2002, a group of states sought to supplement missile nonproliferation efforts by adopting an International Code of Conduct (ICOC), later renamed the Hague Code of Conduct (HCOC).²⁴ The HCOC primarily involves voluntary confidence-building measures, and the MTCR remains the primary vehicle for missile-related export controls.

The NSG, AG, and MTCR were, like COCOM, creations of the Cold War, albeit without the dedicated targeting of export controls on the Soviet bloc. With the dissolution of the Soviet Union, COCOM's *raison d'être* disappeared. Most members, particularly European Union Member States, were eager to expand trade, with some former COCOM members pressing for its full termination.²⁵ However, the United States sought to create a successor regime, but with the recognition that a new regime would have to accommodate the economic concerns of the majority of member states.²⁶ The resulting Wassenaar Arrangement was, as noted by Michael Lipson, “created with greater concern for its effect on commerce than had characterized

22 Amy E. Smithson, “Separating Fact from Fiction: The Australia Group and the Chemical Weapons Convention,” *Occasional Paper 34* (Washington, DC: Stimson Center, March 1997); Jean Pascal Zanders, Melissa Hersh, Jacqueline Simon and Maria Wahlberg, “Chemical and Biological Weapon Developments and Arms Control,” *SIPRI Yearbook 2001*; Brad Roberts, “Export Controls and Biological Weapons: New Roles, New Challenges,” *Critical Review in Microbiology*, Vol. 29 (Fall 1998), pp.235-254; Benoit Morel, “How Effective is the Australia Group,” in Kathleen Bailey and Robert Rudney eds., *Proliferation and Export Controls* (Fairfax, VA: National Institute for Public Policy, 1993), pp.57-68.

23 The rudiments of the MTCR were enunciated in National Security Decision Directive 70 (NSDD-70) of November 30, 1982. In addition to mandating the immediate implementation of stringent unilateral export controls on missile-related military and dual-use equipment and technology, NSDD-70 also called for simultaneously trying to multilateralize this effort among key Western supplier countries. See Scott A. Jones, “Emptying the Haunted Air: Delivery Means and the Post-Modern MTCR,” in Daniel Joyner, ed., *Non-proliferation Export Controls: Origins, Challenges, and Proposals for Strengthening* (London: Ashgate, 2006).

24 Somewhat cynically, India joined the HCOC in early 2018 to enhance its MTCR membership application bid. See Dipanjan Roy Chaudhury, “India joins Hague Code of Conduct against Ballistic Missile Proliferation,” *Economic Times*, July 12, 2018.

25 See Ron Smith and Bernard Udis, “New Challenges to Arms Export Control: Whither Wassenaar?” *The Nonproliferation Review*, Vol. 8, No. 2 (Summer 2001), pp. 81-92.

26 See, Kenneth A. Dursht, “From Containment to Cooperation: Collective Action and the Wassenaar Arrangement,” *Cardozo Law Review*, Vol. 19, No. 3 (December 1997), pp. 1079-1123.

CoCom.”²⁷ The Wassenaar guidelines and control lists were designed to promote transparency, an exchange of views and information, and greater responsibility in preventing “destabilizing accumulations” of advanced conventional weapons and related technologies.²⁸ States have attempted to put some restraints on conventional arms transfers into legally binding form with the UN adoption of the Arms Trade Treaty in 2013. See Figure 1 for a timeline that places the creation of the MECR in the context of other key developments.

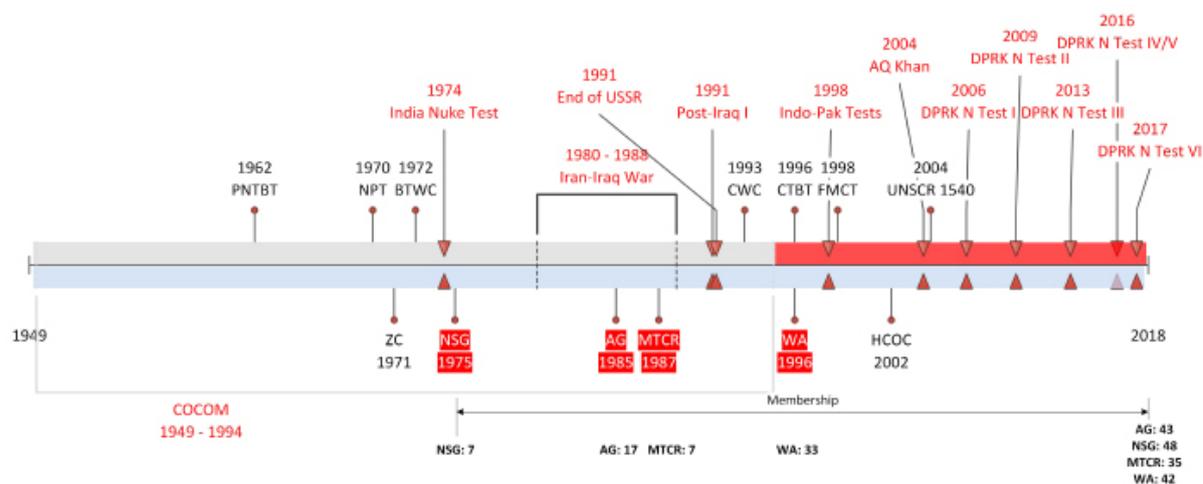


Figure 1. Relating the MECRs to key WMD-related world events

During the late 1990s and early 2000s, the study of the MECRs flourished. Numerous scholarly and government studies of the regimes canvassed a range of issues relating to MECR history, status, and effectiveness.²⁹ The authors were involved in one of the first major systematic studies

27 Michael Lipson, “The Reincarnation of CoCom: Explaining Post-Cold War Export Controls,” *The Nonproliferation Review*, Vol. 6. No. 2 (Winter 2009).

28 Richard T. Cupitt and Suzette R. Grillot, “COCOM is Dead, Long Live COCOM: Persistence and Change in Multilateral Security Institutions,” *British Journal of Political Science*, Vol. 27 (1997).

29 See, for example, Kenneth A. Dursht, “From Containment to Cooperation: Collective Action and the Wassenaar Arrangement,” *Cardozo Law Review*, Vol. 19, No. 3, December 1997, pp. 1079-1123; Michael Lipson, “The Reincarnation of COCOM: Explaining Post-Cold War Export Controls,” *The Nonproliferation Review*, Vol. 6, Issue 2 (Winter 1999); Michael Beck, “Reforming the Multilateral Export Control Regimes,” *The Nonproliferation Review*, Vol. 7, No. 2 (Summer 2000); Study Group on Enhancing Multilateral Export Controls For US National Security: Final Report, April 2001 (Washington, DC: Henry L. Stimson Center); United States General Accountability Office (GAO), “Strategy Needed to Strengthen Multilateral Export Control Regimes,” GAO-03-43, September 2003; Lewis Dunn, et al., “Final Report: Strengthening Multilateral Suppliers Regimes: Challenges, Responses, and Possible U.S. Initiatives,” Advanced Systems and Concepts Office, Defense Threat Reduction Agency, DTRA 01-00-D-0003/DO 21, July 26, 2005.

of the regimes. This University of Georgia study combined survey data with regime theory to conclude that the regimes were suboptimal organizations given their structural constraints (e.g., informal, voluntary organizations composed of increasingly diverse Member States). The next sections of this article examine the evidence for such a conclusion.

Most prior studies have emphasized what they see as basic limitations of the regimes, including their informality, consensus decision making rules, lack of enforcement capability, vague membership criteria and provisions, and inadequate transparency.^{30,31} Galhaut and Zaborsky, for example, argued that MTCR and NSG effectiveness were being undermined by the inclusion of both more and increasingly diverse states.³² They argued that cartel-like informal organizations, as illustrated by the initial membership of the AG, NSG, and MTCR, are inappropriate for larger, politically diverse memberships, some of whom are not actually supplier states. In a similar vein, the U.S. General Accountability Office (GAO) noted that the regimes were constrained in achieving their nonproliferation missions by limited information sharing, uneven and timely adoption of control list changes, and disparate levels of export control capabilities amongst regime members.³³

From 2003-2004, a University of Georgia (UGA) study undertook the first – and until that time the only – systematic assessment of the MECRs.³⁴ The UGA study identified several problems with the regimes. First, the requirement for unanimity in all decision, coupled with divergent perspectives on security among the Member States, was slowing the emergence of new nonproliferation norms. Even a single member could hold up efforts to modify regime

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- 30 For instance, members of the Wassenaar Arrangement, which seeks to prevent “destabilizing accumulations” of arms by regulating transfers by suppliers, have been unable to define, to the satisfaction of all parties, what the term “destabilizing accumulation” means. See Kenneth A. Dursht, “From Containment to Cooperation: Collective Action and the Wassenaar Arrangement,” *Cardozo Law Review*, Vol. 19, No. 3 (December 1997), pp. 1079-1123.
- 31 While not an exhaustive list, the above noted limitations represent a consensus view across MECR studies. See, in particular, Michael Beck and Seema Gahlaut, “Creating a New Multilateral Export Control Regime,” *Arms Control Today*, April 1, 2003, <https://www.armscontrol.org/act/2003_04/beckgahlaut_apr03>.
- 32 Seema Galhaut and Victor Zaborsky, “Do Export Control Regimes Have Members They Really Need?” *Comparative Strategy*, Vol. 23 (Summer 2004), pp. 73–91.
- 33 United States General Accountability Office (GAO), *Strategy Needed to Strengthen Multilateral Export Control Regimes*, GAO-03-43, September 2003.
- 34 Concerns about the efficacy of multilateral export control efforts mounted during the 1990s, prompting The University of Georgia Center for International Trade and Security (CITS) to undertake a comprehensive, multiyear study aimed at evaluating and strengthening multilateral export control regimes, helping them meet new nonproliferation challenges, and attain their objectives. In carrying out this study, researchers from the Center interviewed and surveyed over 100 officials and nongovernmental experts around the world. This exploratory research was followed by intensive off-the-record discussions at two workshops in Washington, DC, USA and Copenhagen, Denmark. The preliminary findings of the study were published in two reports: *Strengthening Multilateral Export Controls: A Nonproliferation Priority* (December 2002) and *Restructuring Multilateral Export Controls: A New Regime for the 21st Century* (November 2003). Subsequent studies by the authors include: Michael D. Beck, “Creating a New Multilateral Export Control Regime,” *The Nonproliferation Review*, Summer 2000, pp. 91-103, Daniel H. Joyner, “Restructuring the Multilateral Export Control Regime System,” *Journal of Conflict and Security Law*, Vol. 9, No. 2 (2004), pp. 181–211; and Michael Beck and Seema Gahlaut, “Creating a New Multilateral Export Control Regime,” *Arms Control Today*, April 1, 2003, <https://www.armscontrol.org/act/2003_04/beckgahlaut_apr03>.

standards indefinitely. Second, Member States were either not sharing information (e.g., on denials and end-users of concern) or not providing information in a timely manner. Third, members' implementation or enforcement of regime guidelines was vastly uneven. Finally, the regimes appeared unable to adequately reformulate rules and norms to deal with technological developments and increased dual-use trade.

Beyond these institutional and political problems, the UGA study had identified a major structural weakness: redundancy. The four regimes worked separately to perform essentially the same multilateral export control functions: establish best practices in the area of enforcement, identify end-users of proliferation concern, and address emerging proliferation issues such as terrorism. The repetitious agenda of meetings held under each regime, as well as the effort of maintaining four separate and nonintegrated information-sharing systems, wasted both scarce funds and the time of the personnel who administer the regimes. The MECRs have maintained this structure to date. But, it is not clear that this structure is sustainable or desirable in the coming decades in light of the changing geopolitical and technological circumstances enumerated earlier.

Limitations of the Existing Multilateral Control Regimes

Informality

The multilateral export control regimes represent a particular type of international institution: informal consultative arrangements best suited for coordinating policies among a small number of *like-minded* countries. During the Cold War, when the export control regimes (save the Wassenaar Arrangement) emerged, they were comprised of a small number of like-minded countries. However, the regimes have grown over the last dozen years to include an increasing number of countries, both supplier and non-supplier, with different security outlooks and interests. And the growth has come without a corresponding increase in the formality and institutionalization of the regimes. Unfortunately, without increased institutionalization and creation of more formal structures (along with changed procedures, to be discussed below), the nonproliferation regimes may no longer be efficient nonproliferation mechanisms.

The current problems of the control regimes, such as vague provisions, uncertain membership criteria, and inability to effectively harmonize control mechanisms across the entire membership are results of the lack of structure within the arrangements. As noted, the export control regimes were designed to be consultative gatherings by which a small number of like-minded suppliers could coordinate export control policies. Hence, there was no need to institutionalize what in essence was already *de facto* agreed upon: the source of threat. The collapse of the Soviet Union and admission of new members—many of whom were former targets of controls—has highlighted the limitations of such organizations. If the members do not share common interests or have much in the way of common identities or common political, economic, and social structures, informal ways and means of establishing goals and agendas become less

effective in coordinating efforts to slow proliferation.³⁵

Some officials also noted that the informal nature of the control regimes is problematic given various regime guidelines and provisions that are vague and open to a range of interpretations. Members of the Wassenaar Arrangement, which seeks to prevent “destabilizing accumulations” of arms by regulating transfers by suppliers, have been unable to define, to the satisfaction of all parties, what the term “destabilizing accumulation” means.³⁶ Likewise, they have been unable to determine officially that conventional weapons trade would potentially destabilize any region. As a result, Member States are forced to rely on norms created outside of the regime (e.g., the declaration of an embargo on warring parties by the UN Security Council), or their own national decision-making rules. The former mechanism is, of course, prone to veto by a non-Wassenaar member, China. The latter obviously makes a multinational regime irrelevant if countries no longer consider coordinating their policies.

In the absence of binding and consistent interpretations of the guidelines, countries are able to adjust their export policies to meet other economic or policy goals that may conflict with the intent of the multilateral regimes. There are also no formal mechanisms to resolve differences in how the guidelines are interpreted by Member States. This situation is a further indication of the limitations of informal control regimes. Finally, harmonized effort is also a problem within the export control regimes. Export control officials note that because the multilateral control agreements are informal and implemented at the discretion of national governments, one cannot speak of compliance with or violations of the regimes. According to one official, one can only speak of a country permitting exports that are “inconsistent” with regime guidelines. Unfortunately, according to many of those interviewed, the informal status of the regimes leaves members with few effective tools (persuasion being of limited utility with certain members) to promote uniformity of interpretation of the regime guidelines.³⁷ And without such uniformity, export control regimes will continue to fail to live up to their potential.

Although the above criticisms are widespread, government officials, in an earlier study, indicated that they believed that the multilateral export control regimes should not be disbanded entirely. Many were strongly supportive of the multilateral efforts, indicating that the opportunity to debate the interpretation of regime guidelines, share information, or discuss national export

35 Mancur Olson emphasized the influence of group size on the fixed costs of collective provision, noting that transaction costs increase with group size, further raising the costs of sustaining collective action. This is particularly the case in organizations with high degrees of member interest heterogeneity. As such, he also posited that the degree of sub-optimality in collective provision would increase with group size. See, Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Cambridge, MA: Harvard University Press, 1965).

36 The term “destablizing accumulations” is referenced in the “Initial Elements” of the Wassenaar Arrangement, one of the Arrangement’s foundational documents. Not only is it difficult to define what a “destablizing acquisition” of weapons entails, but some, like Colin Gray, argue that the concept itself is incoherent: a category mistake, since it is governments, not weapons, that cause war. See Colin S. Gray, *House of Cards: Why Arms Control Must Fail* (Ithaca, NY: Cornell University Press, 1992). See also Ron Smith and Bernard Udis, “New Challenges to Arms Export Control: Whither Wassenaar?” *The Nonproliferation Review*, Vol. 8, Issue 2 (Summer 2001), pp. 82-32, p. 82.

37 Interviews are drawn from authors’ recent research (2017- November 2018) and on the 2002 and 2003 University of Georgia reports. See fn. 32.

control efforts is important in advancing supply-side norms.³⁸ In the authors' past and current interviews, it is clear that regime participants see the regimes as valuable forums for building a common, cooperative-security mindset among members. These officials are quick to point out that the nonproliferation regimes cannot operate unless a significant number of the major suppliers take part, and since certain major suppliers have both varying threat perceptions and varying abilities to commit resources to export controls, differences among regime members are endemic. The imperative to bring non-like-minded members into the fold means that the arrangements must continue to focus on norm creation and convergence, with the more liberal and cooperative members working hard and devoting significant resources to instilling these norms in the newcomers.³⁹

Consensus Rules

Consensus rules represent a particularly intractable problem for all of the export control regimes. The regimes, which require unanimous votes to make or change policies, lists, or structures, are thus poorly equipped to handle the increased number of member countries, especially when those countries have significantly different concerns regarding the downsides of free trade in sensitive technologies. Because of consensus rules, efforts to further enhance the effectiveness of these regimes can be effectively blocked by any member, and, unfortunately, this is not uncommon (especially in the Wassenaar Arrangement).⁴⁰ The West's increasingly antagonistic relationship with Russia suggests that consensus on regime changes in the years to come will be hard to come by.

A common refrain among the government officials that were interviewed was that the regimes could not *do anything* because one or two recalcitrant members hold them hostage. These problem members cannot be removed from the existing regimes since such decisions also require consensus (and they presumably would not vote for their own removal). According to many regime participants, the need for consensus and the infrequency with which consensus is attained makes the regimes slow to react to intelligence about new military applications of existing technologies, new channels of illicit technology acquisition adopted by proliferators, and emerging threats to international security.⁴¹ Intelligence is likewise constrained by growing mistrust amongst key participants (e.g., United States and Russia). Also, delays in decontrolling obsolescent technologies from regime control lists are common and subject to intense public

38 Joyner, Daniel H. "Restructuring the Multilateral Export Control Regime System," *Journal of Conflict and Security Law*, Vol. 9, No. 2, 2004, pp. 181–211.

39 An in-depth examination of the membership problem as it pertains to the MTCR is found in Scott Jones and Victor Zaborsky, "Missile Proliferation and the MTCR: The Nth Member and Other Challenges," Occasional Paper, Center for International Trade and Security, Athens: University of Georgia, 1997. See also Aaron Karp, "Stemming the Spread of Missiles: Hits, Misses, and Hard Cases," *Arms Control Today*, 42 (3), April 2012, <https://www.armscontrol.org/act/2012_04/Stemming_the_Spread_of_Missiles_Hits_Misses_and_Hard_Cases>.

40 Samuel Evans, "Technological Ambiguity & the Wassenaar Arrangement," New College University of Oxford, A thesis submitted for the degree of Doctor of Philosophy Trinity Term 2009, pp. 305-7 <<https://core.ac.uk/download/pdf/28875216.pdf>>.

41 Authors' interviews, Washington, Paris, Beijing, and Buenos Aires, August–November 2018.

pressure from industry.⁴²

Ultimately, the authors view the consensus rules of the nonproliferation export control regimes as severe handicaps to the realization of the nonproliferation goals of the Member States. With little ability to adapt to new realities, and no ability to remove members who threaten the security of all members by their individually deviant behavior, the regimes could potentially come to *undermine*, rather than bolster, international security.

Lack of High-Level Political Support

Mid-level government officials administer the current export control mechanisms. These officials have a tremendous store of practical and substantive knowledge about national export control mechanisms. Wherever there is continuity of personnel in the bodies designated to oversee export controls, an in-depth understanding of how the multilateral regimes operate usually exists. In many countries, one official attends several or all of the meetings of the export control arrangements, in addition to implementing the day-to-day tasks associated with export controls. While this indicates that resources for the export control bureaucracy are indeed scarce, it does have the effect of giving these particular officials a broad knowledge of the multilateral regimes. However, even in countries with export control bureaucracies built around a division of labor (e.g., with different representatives attending meetings of the four regimes), many officials feel overworked and indicate that it is difficult to keep up with all of the meetings in addition to their responsibilities within their national systems. In short, even though nonproliferation export controls are widely deemed to be one of the most important bulwarks in the international security system, they have not been given attention or resources commensurate with their importance by many governments.

Without high-level officials' knowledge of the efficacy of export controls, as well as political support reflecting the high priority placed on export controls in the foreign policies of the Western countries, mid-level bureaucrats assigned to handle the technical issues and diplomacy related to the regimes are unable to clear away obstacles to cooperation. Several of those whom the authors interviewed indicated that instances of Russian intransigence were likely to increase in the current political environment, particularly in the absence of significant political leverage, thereby disincentivizing the pursuit of compromise strategies.

Finally, the lack of high-level attention to export controls may indicate to both member and non-member countries that nonproliferation export controls are not considered a priority among the leading states in Europe, the U.S., and Japan. This has obvious counter-productive implications and effects on efforts by mid-level officials who are trying to help other countries develop fully capable export control systems.

42 The recent policy debates in the United States, for example, regarding drone exports highlight the challenges facing slow-moving regime control parameters. See Daniel Cebul, "Strict Export Regulations May be Costing U.S. Industry Billions in Foreign Sales," *Defense News*, June 18, 2018.

MTCR Case Study

In response to the increasing use of drones in a range of applications, President Obama announced a significantly revised drone export policy in 2015 to little practical effect. In May 2018, President Trump undertook a similar policy initiative, with sceptics noting its limited prospects.⁴³ Meanwhile, Chinese and Israeli drone exports, commercial and military, have come to dominate the global market.⁴⁴ Both China and Israel are not MTCR members. U.S. export constraints are predicated upon the antiquated MTCR control parameters which the current administration is also trying to modify.⁴⁵ When the MTCR was established, drones were less sophisticated and ubiquitous. Today, drones are complex delivery platforms more akin to manned aircraft than ballistic or cruise missiles. Nevertheless, drones are controlled as such. Michael Horowitz, an associate professor of political science at the University of Pennsylvania, contends that “regulating the export of drones and drone parts using range and payload standards relevant for missiles represents a mismatch between technology and reality, which could have negative effects (on the regime).”⁴⁶ The complexities presented by drones represent some of the more salient challenges confronting contemporary “missile” nonproliferation efforts, undertakings that have traditionally centered upon the Missile Technology Control Regime.

Consensus Rules and Growing Membership

The MTCR has expanded nearly five-fold since 1987. Some have argued that membership expansion increases the representational value of the MTCR and nominally broadens the international norm against missile proliferation. Others fear, however, that adding new members with disparate security interests will make it more difficult for the MTCR to reach consensus on addressing emerging challenges, in particular, the need to control new underlying technologies that will enable the growth of missile proliferation in the next two decades.

43 Sarah Kreps, Separating Fact From Hype in Trump’s New Policy on Drone Exports, *World Politics Review*, May 11, 2018. See also, Lisa Seligman, “Trump’s Push to Boost Lethal Drone Exports Reaps Few Rewards,” *Foreign Policy*, December 6, 2018.

44 Sharon Weinberger, “China Has Already Won the Drone Wars,” *Foreign Policy*, May 10, 2018 and Josh Meyer, “Why Israel dominates global drone exports,” *Quartz*, July 2013.

45 The basic two-part MTCR technical annex has not been amended since 1987. While items have been added and removed, the underlying Category system is intact. Since at least 2002, the U.S., in particular, has attempted to revise the Category system. For example, in 2002, President George W. Bush enacted National Security Presidential Directive (NSPD) 23: National Policy on Ballistic Missile Defense in order to facilitate the transfer of ballistic missile defense systems to allied countries. Fundamentally, NSPD sought to modify Category control parameters and the corresponding “presumption of denial” licensing disposition.

46 Michael Horowitz, “Drones Aren’t Missiles, so Don’t Regulate Them Like They Are,” *Bulletin of the Atomic Scientists*, June 26, 2017. Horowitz further notes that “the current approach to grouping drones in the MTCR threatens to undermine the regime as a whole.”

MTCR membership criteria, although they have never been officially announced, include like-mindedness and effective export controls.⁴⁷ Since 1987, the MTCR has expanded to include thirty-five countries considered important for controlling missile technology, nearly half of which are not major suppliers of missile systems. (See Table 1). In addition, a number of other countries (e.g., China, Israel, and Romania) have made unilateral statements of their intention to adhere to the MTCR Guidelines, with China formally expressing its intent to join the regime in 2004.⁴⁸ However, unilateral adoption of export control measures based on MTCR guidelines and lists is not tantamount to actual “adherent” status, as Member States have independent policies for the determination an official adherence. For example, the United States recognizes adherent states only after a bilateral accord has been reached. Furthermore, adherence has not curtailed the missile and drone exporting activities of key suppliers like Israel and China.

Year	Total Members	Members
1987	7	Canada, (West) Germany, France, Italy, Japan, UK, U.S.
1990	13	Spain, Belgium, Luxembourg, Netherlands, Australia, Denmark
1991	18	Norway, New Zealand, Austria, Sweden, Finland
1992	22	Portugal, Switzerland, Ireland, Greece
1993	25	Iceland, Argentina and Hungary
1995	28	Russia, South Africa, Brazil
1997	29	Turkey
1998	32	Czech Republic, Poland, Ukraine
2001	33	South Korea
2004	34	Bulgaria
2017	35	India

Table 2. MTCR membership

At its inception, the regime’s informal membership criteria emphasized like-mindedness, effective export control laws and enforcement, and a strong nonproliferation track record and counted only exporters as members. As the MTCR has expanded to 35 members, however, its standards have eased, allowing countries to be admitted which are not like-minded (e.g. Russia), do not completely share the same nonproliferation ideals as the original members (e.g. Ukraine), and are not even exporters (e.g. Iceland).⁴⁹

47 Richard Speier, “Russia, Ukraine, and the Nth Member Problem,” in “Missile Proliferation and MTCR: The Nth Member and Other Challenges,” Occasional Paper, Center for International Trade and Security, University of Georgia, June 1997, pp. 6–7.

48 See See, Scott A. Jones, “Emptying the Haunted Air: Delivery Means and the Post-Modern MTCR,” in Daniel Joyner, ed., *Nonproliferation Export Controls: Origins, Challenges, and Proposals for Strengthening* (London: Ashgate, 2006).

49 Moreover, over the past two years of the Trump Administration, it is clear that U.S. foreign and security policies, including nonproliferation interests, do not align neatly with other member countries. The most obvious examples include differences between the United States and EU countries with respect to Iran and the JCPoA, and conflicting interests of the United States and Russia.

Rather than the more standardized criteria of the past, admission of new members to the MTCR today has become a bargaining process involving political and commercial tradeoffs and side payments. So, whether or not China, for example, joins the MTCR is going to depend largely on what demands the current members and Beijing bring to any accession negotiation and the prospects that they can be realized or surrendered.⁵⁰

Although one of the principal objectives of the regimes is to coordinate or harmonize national policies, it is clear that some countries are not implementing and enforcing export controls in a manner consistent with their nonproliferation objectives. Aside from the United States and some of the larger supplier states, for instance, few countries are actually imposing civil or criminal penalties for export control violations. This suggests that enforcement is lacking. Indeed, various studies of national export control systems continue to show that wide discrepancies among the control systems of regime member countries persist.⁵¹

Inadequate Information-Sharing

Information-sharing is critical to effective multilateral control efforts. Despite extensive efforts aimed at developing information-sharing networks, MTCR members are not sharing information fully or efficiently. A study by the U.S. General Accounting Office (GAO) drew attention in particular to the failure of some states to pool information about denials of export license applications.⁵² The GAO found, for example, that 65 percent of members have never reported export denials.⁵³ Many countries provide pre-license consultations that result in *de facto* denials. These, too, are also almost never reported to other regime members.⁵⁴ The failure to share information, or to share it in a timely manner, undercuts the ability of members to assess

50 V. Zaborksy, "Does China Belong in the Missile Technology Control Regime?" *Arms Control Today*, Vol. 34, No. 8 (October 2004).

51 See, for example, Michael Beck, Richard T. Cupitt, Seema Gahlaut, and Scott Jones, eds., *To Supply or To Deny: Comparing Nonproliferation Export Controls in Five Key Countries* (New York: Kluwer Law International, 2003).

52 "Nonproliferation: Strategy Needed to Strengthen Multilateral Export Controls," U.S. General Accounting Office, Report to Congressional Committees 03-43, October 2002. The GAO found that the failure to share information on approvals prevents regime members from determining whether undercutting was taking place. Since the 2002 study, the regime literature has decreased. In our literature review, we have not identified a sustained and focused study on the regimes.

53 *Ibid.*, p. 12.

54 *De facto* denials refers to the practice in several countries whereby informal consultations between the exporters and the licensing officials help exporters decide whether they should even bother to apply for a particular export license. Officials may indicate that a license for a particular export to an end-user is likely to be denied, discouraging the exporter from even applying. Several regime members have low rates of denial, according to their official statistics, because of such pre-screening. Absent the pre-screening data, fellow members may grant a license for the same item.

patterns in technology trading or acquisition and detect activities of proliferation concern.⁵⁵ Efforts to strengthen information sharing, including proposals that would have Member States report on export approvals, have met with resistance from a few regime members. The consensus rules cited above have allowed resistance from a determined minority to stall badly needed reforms in this area.

Outmoded Technological Parameters

While the initial focus of the Regime was on controlling the proliferation of nuclear-capable systems, its purview was expanded to include missiles for the delivery of chemical or biological weapons (CBW) in 1993. MTCR members have nominally agreed to exercise the most stringent control over what are referred to as Category I systems, or MTCR-class. The technical means – predicated as they are on the physical laws governing ballistic missiles – to determine this category, however, are inadequate for controlling many unmanned systems, such as cruise and loitering missiles and unmanned aerial vehicles (UAVs).⁵⁶ Moreover, the underlying technology of cruise missile and UAV systems is nearly identical with that of manned systems and therefore ubiquitous.⁵⁷ For example, more than 80 countries today have cruise missiles of some kind. Eighteen of these countries manufacture cruise missiles domestically. The remaining 63 countries import these weapons.⁵⁸

While the MTCR has been relatively effective in limiting the spread and sophistication of ballistic missiles, its ability to control more precisely the proliferation of unmanned systems

55 Unfortunately, most regime discussions are truly black boxes. For example, in a 2011 interview, NSG Chair Ambassador Piet de Klerk observed: “It’s clear there is a tension between transparency on the one hand and confidentiality on the other. We have formulated a number of guidelines about communication and stronger relationships with different stakeholders, be it media, be it civil society. This interview is part of that thinking. But how far you can go in discussing sensitive issues like the Chinese supplies and whether India should become a member remains to be seen. You can’t be too specific about debates that are still under way and are not finished yet.” “The NSG in a Time of Change: An Interview With NSG Chairman Piet de Klerk,” *Arms Control Today*, October 2011 <http://www.armscontrol.org/act/2011_10/Interview_NSg_Chairman_Piet_de_Klerk>.

56 The flexibility of cruise missiles to trade off payload and range configurations makes agreement on how to calculate capabilities difficult. Moreover, overlapping military and civilian technology increases pressure to allow technology exports. Ballistic missiles do have a civilian counterpart technology – space launch vehicles – but the technologies are not nearly as ubiquitous as they are for UAV technologies in the aircraft industry. See National Air and Space Intelligence Center (NASIC), “Ballistic and Cruise Missile Threat,” NASIC-1031-0985-17, June 2017.

57 There is no universally accepted definition of cruise missiles, but they can be categorized as unmanned aerial vehicles (UAVs) that are a) continually powered by an air-breathing or rocket engine; b) generally guided for their entire flight; c) weaponized; and d) generally optimized for one-way missions. This contrasts with weaponized UAVs such as the Predator, that can perform multiple missions, but they are treated similarly under the MTCR.

58 See United States Air Force, “2017 Ballistic and Cruise Missile Threat Report,” National Air and Space Intelligence Center June 2017 and International Institute for Strategic Studies (IISS), *The Military Balance* (Routledge: London, 2017).

is insufficient.⁵⁹ Although most cruise missile sales to date have been of relatively short-range anti-ship systems, it is clear that ranges are increasing. Moreover, the ease with which anti-ship systems can be converted to the land-attack role suggests that LACM inventories could readily increase. The land attack-capable Taiwanese *Hsiung Feng II*, for example, which has been offered for export, is effectively a reverse engineered U.S. *Harpoon* ASCM. The relative simplicity of cruise missile technology and the increasing availability of technologies, such as the Global Positioning System (GPS), mean that an increasing number of countries are acquiring the ability to develop land attack cruise missiles. Category I type controls will be further outstripped by growth in air vehicle types and applications. As a result of the inflexibility of current MTCR controls, proliferators can purposely design systems to circumvent Category I controls, such as the Indo-Russian “Brahmos” supersonic anti-ship cruise missile (ASCM).⁶⁰

Conclusion

The multilateral export control regimes have made important contributions in defining what items can make a contribution to WMD or have military significance and should thus be regulated. The lists of the regimes have become the *de facto* international standard for most all states establishing comprehensive control systems. The regimes have also helped to develop and disseminate export norms and practices for trade in listed items. And finally, they have provided fora for sharing of best practices in implementing controls at a national level.

According to regime theorist Arthur Stein, “[R]egimes are maintained as long as the patterns of interest that gave rise to them remain.”⁶¹ The shortcomings of the regimes as noted above stem from both external and internal shortcomings. Internally, the regimes are stymied by an informal structure that allows some member governments to flout the norms, consensus rules that slow efforts to reform, discretionary implementation, and members with increasingly divergent interests that run against the original idea of having “like minded” countries. External challenges abound as the regimes have not shifted to deal with the acquisition methods of sub-state groups, nor responded to realities of global technology creation and movement, nor responded to growing concerns about new “emerging technologies” that remain unregulated. New geopolitical realities mean that the regimes as currently constituted cannot be reformed.

59 The Wassenaar Arrangement picks up the lower range of the capability spectrum with respect to cruise missile and UAV systems. Wassenaar, which supercedes Cold-War COCOM (Coordinating Committee) export controls, specifically regulates UAVs and UAV technology designed for military purposes. Thus, exports of cruise missiles with ranges shorter than 300 km that can carry warheads weighing less than 500 kg that are not destined for countries with WMD programs are subject to restrictions under Wassenaar. However, Wassenaar includes exceptions, as does the MTCR, for technologies and components intended for manned aircraft.

60 “Why Brahmos Sale To Vietnam Is No Violation Of Missile Technology Control Regime Commitment,” *Outlook*, August 23, 2017 <<https://www.outlookindia.com/website/story/why-brahmos-sale-to-vietnam-is-no-violation-of-missile-technology-control-regime/300671>>.

61 Common interests can evolve from regimes predicated upon common aversion and vice versa. In some respects, it can be argued that the MECR, with changes in membership, have evolved from regimes created to address dilemmas of common interest. Arthur A. Stein, “Coordination and Collaboration: Regimes in an Anarchic World,” *International Organization*, Vol. 36, No. 2 (Spring, 1982), pp. 299-324.

The United States is increasingly focusing its export controls on denying China access to dual-use items and a range of emerging and foundational technologies that have yet to be defined.⁶² Russia is now another principle target of U.S. sanctions and U.S. export controls, yet is a member of three of the four regimes.⁶³ The U.S. decision to withdraw from the Joint Comprehensive Plan of Action (JCPOA) with Iran has resulted in a rift between the United States and all other parties to the deal, including the European Union. As such, U.S. efforts to sanction and to impose restrictions on trade with Iran lack support from even traditional U.S. allies. Simply put, there is very little like-mindedness amongst key members of the multilateral export control regimes.

At present, the MECRs can be located within a “nonproliferation regime complex” (see Figure 2).⁶⁴ Colgan, Keohane, and Van der Graaf describe the process of regime complex innovation as resulting from dissatisfaction with the *status quo* in an issue area, such that new regimes may emerge within a complex to address emerging problems.⁶⁵ Institutional stasis is a function of interest divergence. As noted by Keohane, et al., “As the dissatisfaction of a given issue-area decreases, the regime complex is likely to become frozen, retaining the structure that it developed during the previous period.” Transcending the impasse, regime innovation can be described as proceeding via a “punctuated equilibrium” model of development: long periods of institutional stasis interrupted by sudden bursts of innovation.⁶⁶ The prompt for institutional change arises when levels of dissatisfaction are acute and shared by powerful states.

62 See, for example, The United States-China Economic and Security Review Commission, “2018 Annual Report to Congress,” November 4, 2018, <https://www.uscc.gov/Annual_Reports/2018-annual-report>.

63 For example, on August 2, 2017, President Trump signed into law the “Countering America’s Adversaries Through Sanctions Act.” See <<https://www.treasury.gov/resource-center/sanctions/Programs/Pages/caatsa.aspx>>.

64 Where interests and power are fragmented, incentives for cooperation often lead to what Kal Raustiala and David Victor have called “regime complexes.” In their terms, a regime complex is “an array of partially overlapping and nonhierarchical institutions governing a particular issue area.” See, K. Raustiala, and D. Victor, “The Regime Complex for Plant Genetic Resources,” *International Organization*, Vol. 58, No. 2, Spring 2004, pp. 277–309.

65 See, Jeff D. Colgan, Robert O. Keohane, and Thijs Van de Graaf, “Punctuated Equilibrium in the Energy Regime Complex,” *The Review of International Organizations*, Vol. 7, Issue 2 (June 2012), pp. 117-143.

66 “Regime complexes, like other institutions, will be sticky in the sense that they are hard to change. As a result, we expect changes in regime complexes to exhibit a pattern of punctuated equilibrium, driven by sporadic trigger events and dissatisfaction among major states.” *Ibid.*, p. 4. In many respects the MECR are “innovations” of the nonproliferation regime complex, emerging in response to critical international events for which the treaties were necessary but insufficient solutions to WMD proliferation.

Nonproliferation Regime Complex					
	Nuclear	Chemical	Biological	Delivery	Conventional
Treaty	NPT 1968	CWC 1997	BTWC 1975		ATT 2013
	Outer Space Treaty (1967) Seabed Treaty (1972)				
Supplier-Based Technology Control Regime	NSG 1971 Zangger Committee 1971	AG 1985		MTCR 1987	Wassenaar 1994
	UNSCR1540 (2004)				
Verification Agency	IAEA 1957	OPCW 1997			
Parallel Ban/ Control Measures	CTBT/PTBT FMCT NWFZs Bilateral Treaties			ICOC/HCOG Bilateral Treaties	OAS OSCE ECOWAS CD

Figure 2. The nonproliferation regime complex

Given these realities, what can we expect from these informal institutions? Given that all the regimes perform similar functions with respect to defining control lists, sharing information, and establishing best practices, one approach would be to coordinate these efforts at one forum. This would mean that rather than having technical experts meet at four different venues to review lists, it would be done at one venue, albeit with different working groups. Another group would be dedicated to coordinating and defining best practices relevant to all the regimes (e.g., brokering, intangibles, transit/transshipment controls) and, to the extent that it is still possible, share information on activities of proliferation concern. The benefits of such an approach are to preserve the key functions that the regimes have played while minimizing transaction costs.

At the same time, the forum for the regimes might serve as a focal point for creating new regimes and to hold other multilateral consultations on controlling strategic trade. For example, a regime might focus on establishing best practices for UN sanctions implementation being open to a wider array of countries. It might work to establish a set of common forms (e.g. end-user certificates) to help lower the growing trade compliance costs for global companies. If members of the Wassenaar Arrangement are unable to agree on a new range of “emerging technologies” to regulate, a new informal agreement or group might be negotiated to regulate or monitor such trade. Such a regime might involve a smaller set of states that can find common ground. Simply put, the idea would be to create a forum or gathering site for establishing norms and guidelines for regulating or monitoring trade in a wider array of “strategic” items and for sharing information on such trade. This approach recognizes geopolitical realities (diverging

national security interests of major powers) while also allowing for efficient multilateral export control coordination to the extent possible.⁶⁷

Regardless of what approach is taken, the international community is approaching a period of increased complexity in trade controls. Now more than ever, major trading states are turning to export controls and sanctions as tools of “economic statecraft” designed to achieve national security objectives. Those objectives are rarely aligned, especially as “national security” is coming to be defined in terms of “economic security.”⁶⁸ A failure of the United States and others to pursue greater coordination, however, risks creating a morass of controls that businesses will not be able to navigate. Current U.S. unilateral export control and sanctions efforts in particular may restrict U.S. trade and international transactions that have served to advance the U.S. economy for decades. As such, the Trump Administration may wish to recognize the limits of “America First” when it comes to managing strategic trade.⁶⁹

67 See Michael Gilligan, *The Transactions Costs Approach to International Institutions. Power, Interdependence and Nonstate Actors in World Politics* (Princeton: Princeton University Press, 2009).

68 As noted in the 2017 National Security Strategy, “We stood by while countries exploited the international institutions we helped to build. They subsidized their industries, forced technology transfers, and distorted markets. These and other actions challenged America’s economic security.” National Security Strategy of the United States of America, 2017.

69 For example, see Jeffrey Lewis, “American Hypocrisy Is Harming Nonproliferation Efforts,” *Foreign Affairs*, October 2, 2018.

The Center for Information on Security Trade Controls (CISTEC) Export Control Model of Japan: Role, Utility, and Management

CISTEC¹

Abstract

This article focuses on the role, utility, and management of Japan's Center for Information on Security Trade Controls (CISTEC) model. The article provides analysis on CISTEC's development, mission, human resources, and financial structure. The article then explains CISTEC's impact on Japan's Ministry of Economy, Trade, and Industry (METI), other government agencies, and industry. The article concludes by identifying new and future challenges for CISTEC and providing several observations regarding the uniqueness of the CISTEC model.

Keywords

Japan, export controls, Center for Information on Security Trade Controls (CISTEC), Asia, capacity-building, Ministry of Economy, Trade, and Industry (METI)

Introduction

Recently, significant attention has been given to Japan's Center for Information on Security Trade Controls (CISTEC) due to its development of a "CISTEC model" or "Japanese model" for export control cooperation. Requests for participation in various international export control seminars and conferences and information about the role and function of CISTEC have been conspicuously increasing. There are two reasons for this increased interest. First, international partners have indicated that the model can be helpful for establishing and enhancing export controls in their countries. Second, there are few similar organizations that exist worldwide. This article explains the factors that contribute to the effectiveness of the CISTEC model in

1 CISTEC is a non-profit and non-governmental organization specializing in export controls in Japan. This article was co-written by CISTEC's management.

Japan and describes challenges and lessons learned that can be useful to other countries seeking to implement effective export controls.

CISTEC's Development and Mission

CISTEC is a “general incorporated foundation” classified as a non-profit organization (NPO) in Japan. It is not a government agency, an industry association, or a law firm. However, CISTEC does incorporate certain aspects of each of these sectors into its own organization. Specifically, CISTEC's regular activities include export control awareness-raising, the provision of tools for smooth implementation of related laws and regulations, gathering and provision of relevant information on laws, regulations, technology, and international environments, consolidation of industry opinions, and formal and informal negotiations with government authorities.

CISTEC was established in 1989 under the leadership of Japan's Ministry of Economy, Trade and Industry (METI) following a violation of the rules of the Coordinating Committee for Multilateral Export Controls (COCOM) by a major Japanese machine tool manufacturer in the late 1980s. METI possessed the general supervisory right to operate public interest corporations and gave CISTEC various consignment expenses. However, since 2010, following a public interest corporate reform by the Japanese government, CISTEC transitioned into a “general incorporated foundation” not under governmental supervision and funds. This means that CISTEC is now organizationally independent from the Japanese government. Regarding CISTEC's operations, CISTEC and METI cooperate closely and have a mutually complementary relationship.

Because CISTEC is a private organization, it is technically permitted to create competing organizations operating simultaneously. However, currently this is not the case and CISTEC is the only nonprofit in charge of export controls in Japan.² This situation has developed naturally in the course of CISTEC's operations over the course of nearly thirty years.

In Europe and the United States, law firms play a leading export control advisory role for industry, but in Japan there are few situations in which lawyers become involved in export control processes. Instead, CISTEC plays an important role here which will be further described later in this article.

As of 2019, CISTEC's membership is comprised of around 491 associate member corporations. These are composed mainly of private companies and research institutes, including major exporting companies, manufacturers, trading companies, and more. The number of associate member corporations increases every year. Membership has increased by nearly 190 companies since 2007, when it was about 300 companies. Associate member corporations need to pay an annual membership fee in order to receive export control services from CISTEC and participate in the activities of the Export Control Committee.

2 There are Japanese industrial associations. One of their many functions is export control. Examples include the Japan Machinery Center for Trade and Investment (JMC) and the Japan Foreign Trade Council, Inc. (JFTC). However, CISTEC is the only organization specializing in export controls in Japan.

CISTEC's main tasks are as follows:

1. *Administration of the Export Control Committee, including:*
 - Exchange of opinions among associate member corporations and METI;
 - Negotiation and cooperation with METI for rationalization of export control rules and practices;
 - Review of controlled item lists of international export control regimes and recommendations to METI on these lists.
2. *Services and support to CISTEC members, including:*
 - Publishing services, comprehensive database services, training programs, consultation services such as enhancing industry compliance;
 - Research projects;
 - Audit services and organizational development support services;
 - Certification examination program;
 - Classification support services.
3. *Outreach cooperation*

CISTEC's third task includes cooperation with government and international organizations in Japan and overseas through outreach seminars and by dispatching speaker delegations to governments and industries worldwide.

CISTEC's Human Resources and Financial Structure

Human Resources

CISTEC's staff is composed of four full-time executive officers and three to four executive-level staff. CISTEC also consists of former METI officials who while at METI had the sole authority to issue export control licenses under Japan's Foreign Exchange and Foreign Trade Law. METI's staff also includes former executives and employees of exporting industries. The Executive Managing Director has been a former official of METI since CISTEC was established. Since CISTEC's formation, the number of staff who have been former industrial executives has been gradually increasing. There are many employees who are seconded from major companies – about ten people – and regular staff members for the manager and senior researcher class. Seconded employees have played an important role in expanding the knowledge and human capacity at CISTEC and, after returning from their time at CISTEC, have become executives or transferred to CISTEC as regular staff.

There are, in total, about 45 executives and employees at CISTEC. However, the activities of the organization are carried out not only by this staff, but also by the organization's "Export

Control Committee” consisting of volunteer members of the associated member corporations.³ In various committees and subcommittees under its umbrella, opinions are gathered from the industries and exchanged with METI. There are nine committees composed of associated member corporations and others, and there are various subcommittees and working groups that also operate under them. The cumulative number of these registered members is more than 1,300. Participating in CISTEC’s committee activities is one of the regular tasks of major companies’ export control divisions. METI staff and executives also often participate in these committee activities and their discussions.

In addition, although not full-time, CISTEC has contracts in place with about 25 export control advisors who are experts engaged in related businesses. These advisors, who are experienced professionals with years of experience working for major exporting companies, often participate as lecturers at CISTEC’s seminars and companies’ in-house training events. They also support product classification.

As mentioned above, partnerships between the government and the private sector also function within CISTEC’s secretariat and committee activities. Government officials have a good understanding of export control laws and regulations and their formation processes, but they are not necessarily fully informed about companies’ export control practices and technical trends. The opposite is generally true regarding staff from the private sector. The power of CISTEC lies in deepening mutual understanding and cooperation between the two sides and it is one of the factors that underscore the effectiveness of Japan’s overall export control model.

CISTEC executives are keenly aware of the need to successfully utilize the expertise of both the public and private sectors within the organization’s management structure. If the balance collapses, it may degenerate into a seniority organization, a subcontracting organization, or a convenience store organization. Alternatively, making requests to the government on behalf of the private sector and for their benefit would render CISTEC a simple petition group, unable to effectively resolve problems and challenges.

Financial Structure

When it was established, 50 percent of CISTEC’s basic assets as a foundation were provided by industry and the other 50 percent from public support organizations, making it a public-private partnership. CISTEC’s total fiscal size is currently about 700 million yen.

In the first ten years of its existence, commissioned expenses and subsidies from METI and public support organizations accounted for nearly half of CISTEC funding. However, this proportion has shrunk year after year, and since 2011, all funding has been covered independently by CISTEC’s independent income. Forty percent of CISTEC’s current funding comes from company membership fees and the remaining 60 percent from voluntary projects, such as publications, seminars, databases, certification exams, and others.

3 As the committee secretariat, approximately 10 senior researchers are being second from major export companies.

CISTEC's Impact on METI and Other Government Agencies

As mentioned, CISTEC has not received direction or financial support from METI. However, because of METI and CISTEC's respective export control roles, they have a mutually complementary relationship. Government agencies such as METI consider CISTEC useful for the following reasons:

CISTEC serves as a cross-industry liaison for collecting opinions, forming consensus, and conveying them to METI

Associated member corporations of CISTEC are comprised of major manufacturing exporters. CISTEC consolidates diverse industry opinions and is therefore able to channel and communicate industry positions when METI coordinates policies on export control policy and implementation measures.

While other industry associations exist in specific sectors, such as the Japan Machinery Export Association and the Japan Foreign Trade Association, CISTEC is often in charge of coordinating cooperation between different sectors and channeling common positions to relevant government authorities as necessary. In addition, members of these related industry associations participate in CISTEC committee activities, further helping to channel their opinions and positions to CISTEC.

Sometimes, for example in the case of new regulations or regulatory changes, industry interests may not necessarily align. CISTEC plays an important role in fostering a common position and helping to align diverse interests. In addition to opinion consolidation within industry, CISTEC fosters the informal exchange of opinions, helping METI implement regulations that are in line with the realities facing exporters.

CISTEC enhances exporting companies' self-regulation

METI creates export control rules based on the agreements formed by international export control regimes. However, in order to make Japan's export controls effective, it is essential to strengthen exporting companies' self-regulation, including in actual practical operations. In this role, CISTEC is indispensable.

Based on the comprehensive guidelines formulated by METI, CISTEC has formulated a model Internal Compliance Program (ICP) for self-regulation that companies can use. It has been drafted for use by both large and small and medium enterprises. This model ICP is frequently revised and improved within CISTEC's committees and widely disseminated.

Importantly, METI incentivizes companies to strengthen their internal compliance by giving them preferential treatment. For example, METI can give a comprehensive license to companies that have a properly operating ICP. It is important to note that METI is the sole decision-maker regarding whether or not a company deserves preferential treatment.

CISTEC supports exporters' understanding of export control rules and regulations

The Foreign Exchange and Foreign Trade Law, Japan's main export control law, is extremely complicated and can be hard to understand. CISTEC translates the law for stakeholders in an easy-to-understand manner, adds commentary, and conducts public awareness promotion activities such as publications, seminars, and consultations.

In addition, due to the complexity of Japan's export control laws and ordinances, it can be difficult to classify products and technologies accurately. In order to make classification easier and reduce the burden on exports, CISTEC provides the latest versions of the regulations and tools, such as parameter sheets and item-by-item comparison tables, and more. Japanese Customs trusts the results of classifications based on CISTEC's tools.

In Japan, preparations are in progress to harmonize the classification numbering system with the European Union system. Until harmonization is complete, CISTEC has been voluntarily maintaining a detailed correlation table of Japan's classification numbers and their EU counterparts that is widely used as a reference by industry and other stakeholders.

CISTEC membership provides a high degree of professional expertise that benefits METI

There are many professionals who have engaged in export control implementation at the government and private sector level that make up CISTEC's staff. These experts are familiar with the implementation history of Japan's export control policies, systems, and practices. At METI and other government agencies, on the other hand, staff members are often replaced due to regular personnel changes and it is rare for one individual to be in charge of export control for a significant period of time. CISTEC therefore plays an important role in providing information on past policies and measures and the situation of exporters over time.

In CISTEC committee activities, requests to improve regulations and procedures are discussed on a daily basis and their results are channeled to METI. These reflect, for example, issues and recommendations on difficult-to-understand aspects of the export control system, areas where the system does not reflect the realities of corporate practice, or measures enabling operations to be more harmonized with the EU classification numbering system. Communicating these viewpoints helps balance the effectiveness of regulations and reduces the burden on industry. METI has adopted many of CISTEC's recommendations.

In addition, expertise on listed products and technologies is provided by CISTEC and its associate member corporations. CISTEC consolidates expert knowledge through committee activities and through its advisors who possess expertise from different specialized fields. CISTEC also publishes guidance and holds training seminars for each specialized field.

In some cases, on the basis of CISTEC's recommendations, industry experts are temporarily assigned to positions in government and participate in international negotiations and other activities on the premise of confidentiality.

CISTEC supports government-run outreach activities

METI operates the annual Asian Export Control Seminar and several overseas outreach seminars under its budget. CISTEC often undertakes organizational and chairperson responsibilities for these events. CISTEC cooperates with METI on industry outreach, often helps choose the topics that are discussed by industry, and selects appropriate expert lecturers. CISTEC also participates in regional and international outreach activities, where it is asked to introduce and explain Japan's export control system.

CISTEC provides training for government agencies and other organizations

CISTEC uses its industrial network for training on topics such as export control classification and others for government agencies and other organizations. CISTEC also provides information on other countries' export control rules, procedures, and related policies. The comprehensive database service provided by CISTEC is used by many trade control-related Japanese ministries and agencies. This role is discussed in more detail later in this article.

CISTEC Impact on Industry

CISTEC has a significant impact on industry operations. As mentioned, the number of CISTEC's associate member corporations increases each year. CISTEC provides the following services to industry partners:

CISTEC creates opportunities for information exchange and negotiation with export control authorities

As mentioned above, CISTEC is extensively engaged in the activities of the Export Control Committee which is composed of associate member corporations. By participating as a committee member in these activities, members have the opportunity to exchange opinions and participate in negotiations with METI, Japanese Customs, and other trade control-related government agencies. METI staff sometimes participate in CISTEC's working group meetings, providing further opportunities for dialogue.

When annual international export control regime meetings are held, or when the government revises legal rules and systems, industry's opinion should be reflected. It is an advantage for CISTEC to have the above-mentioned direct channel for exchange of information and opinions between industry and government.

Regarding requests to the government where companies wish to remain anonymous, CISTEC is able to convey these as anonymous industry requests to the government.

Through the committee activities on international cooperation and exchange, dialogue can take place with officials and executives from foreign countries' governments and industries. CISTEC has been dispatching delegations to the United States and to European Union Member States every two years since 2002, and to Asian countries every year since 2016. Through these delegation meetings, CISTEC can obtain the most up-to-date information on export control

regulations and practices and also engage in frank discussions on important issues, including requesting comments for improvements or revisions. Such delegation meetings are also valuable opportunities for the participants from CISTEC, the member companies, and local subsidiaries to acquire contacts and interact with government officials and industry representatives from each country.

CISTEC enables information and personnel exchange among companies from different industries

While conducting everyday business activities, it is difficult for people in competitive relationships from different companies or sectors to exchange and share information with each other. However, in the field of export control, people often have the same goal and it is possible to widely share the information on export controls and compliance, such as ICPs, good practices, and more,

CISTEC's associate members include companies from many sectors, such as manufacturers, trading companies, IT companies, logistics companies, and others. Opinion exchange and dialogue promotes mutual understanding in dealing with different situations. Even if sometimes initially there are no mutual interests, there are many cases where adjustment and consensus can be made through CISTEC committee activities.

Because many industry experts are involved in CISTEC committee activities, they form a large export control community. For this reason, through this activity, it is possible to recognize the existence of specialized human resources which create opportunities for personnel transfer among companies.

CISTEC enables sharing of the latest export control information and best practices

CISTEC's associate members include most major Japanese exporting companies whose experts can share information about their best practices through committee activities. These practices are generalized through CISTEC's self-regulation guidelines and can gradually become common throughout industry and improve overall industry compliance. CISTEC's self-regulation guidelines provide detailed guidance on CISTEC's model ICP.

CISTEC collects, consolidates, and shares information

It is difficult and time-consuming for companies to gather information about the legal systems and procedures of other countries, illicit procurement, diversion, or other trade control implications in countries of concern. CISTEC, however, gathers and shares such information with associate members through committee activities.

CISTEC obtains and shares information on U.S. laws and regulations which is critical due to the U.S. regulations' extraterritorial effects. In addition to sharing the information through committee activities, CISTEC dispatches staff to the annual U.S. Department of Commerce BIS Update Conference and provides updates and information from the conference to its associate members.

Recently, United Nations Security Council sanctions resolutions have become increasingly complicated regarding North Korea, Iran, and other nuclear and missile issues. In addition, the United States is increasingly using primary and secondary sanctions. These developments can create serious challenges for companies developing global business activities. In this respect, the collection and provision of information by CISTEC is quite useful. Detailed reports on the above-mentioned CISTEC delegation trips to the United States, Europe, and Asian countries are widely shared among Japanese industry.

CISTEC contributes to industry compliance

CISTEC provides a wide variety of classroom and web seminars, publishes commentary and guidance, and offers practical skills certification examinations from beginner to expert level. Through these activities, CISTEC contributes to the improvement and efficiency of internal compliance programs.

Although export control seminars are also held at METI, they usually focus on explaining the Japanese legal system. CISTEC's seminars include this topic but also provide information on the export control systems of other countries.

In addition, CISTEC's comprehensive database contains the latest laws and regulations, classification tools, and information on customers of concern. The database search tools have been improving every year. This database contributes to industry compliance with export control laws and regulations and end-use checks.

CISTEC provides third-party certification functions

The published list of non-controlled integrated circuits is based on voluntary judgments by companies with highly developed ICPs. This list is published only when it satisfies CISTEC's criteria. For this reason, the list's reliability is enhanced externally rather than disclosed separately by the company, and it is trusted by Japanese Customs.

CISTEC's classification assistance service began in 2013. It contributes to improving the reliability of classification judgments by using CISTEC experts to verify or substantially modify difficult classification judgments. In other words, in this regard, CISTEC provides a third-party certification function. The CISTEC experts' classification advice is not legally binding but is nevertheless trusted due to their experience in classification work. Many small and medium enterprises use this service as it helps them improve their export control compliance level.

In addition, CISTEC has provided an audit/internal system assistance service since 2015. This service checks and reviews, as a third party, whether compliance based on a company's ICPs is properly carried out and whether such systems have been established in each company. This service aims to supplement the lack of professional human resources and experience of audit departments and the shortage of manpower and expertise of export control departments. CISTEC expert advice is not legally binding in this case either but is trusted due to experts' experience in export control audit/internal system assistance work.

CISTEC provides certification of export control personnel

CISTEC's practical ability certification examination program on export control was founded in 2004. While not a national but a voluntary qualification, this program is the sole personnel qualifier in the export control field in Japan. This program is divided up into an elementary (ASSOCIATE) course and a higher level (EXPERT) course, with both aiming to raise the practical skills of export control personnel. Currently, there are about 31,600 graduates of the ASSOCIATE course and about 400 graduates of the EXPERT course. The pass rate of the course ASSOCIATE is more than 50 percent but that of EXPERT is less than ten percent.

The EXPERT course is divided into a comprehensive course, which includes an examination of product and technology classification, and a legal (Legal EXPERT) course. Graduates are given the "export control manager" qualification and can take on core export control roles in companies. In addition, in 2015, a new intermediate (ADVANCED) course was established as a certification tool for gradually improving students' practical skills.

When companies, universities, government research institutes, and other stakeholders seek export control personnel, in addition to the above-mentioned certification status, contributions to committee activities at CISTEC and to CISTEC's other activities are also influential factors for employment decisions.

In this way, CISTEC's certifications and activities fulfil human resource functions and can enhance an individual's employment potential in the export control field in Japan.

CISTEC provides human resource intermediation services

Securing human resources that can carry out export controls within a company is an important task. It is difficult to train company personnel to be knowledgeable about export control laws and regulations, practical operations, and properly carry out self-regulation in a short period of time.

Therefore, CISTEC started an intermediation service for the introduction of export control experts in 2009. Specialized personnel who have been involved with export management for many years in large companies can be registered at CISTEC when they plan to retire or retire, and if there is information on recruitment of staff, the information is provided. CISTEC does not mediate directly, and this service provides for the collection and provision of recruitment information. Currently there are more than 200 registrants.

As a result, it is possible for recruiters to secure excellent professional human resources and from the human resources side it is possible to secure a place for a second-stage activities. At a broader level, this service makes it possible to make effective use of professional export control personnel all over Japan and thereby improve compliance nationwide.

There have been more than 100 intermediation achievements to date, as many companies, universities, research institutes, and government-based public corporations seek export control staff.

New and Future Challenges for CISTEC

Small and medium enterprises (SMEs) and universities

In Japan, export control compliance is strong in the management systems and practical operations of large companies. However, many small and medium enterprises and universities have high-tech products and sensitive technologies but, in many cases, their level of export control compliance is not sufficient due to a lack of human and financial resources.

CISTEC operates by securing funding from membership fees from associate member corporations and from various voluntary projects. Therefore, providing services free of charge to SMEs and universities would require significant human and time resources. This is because there are huge number of SMEs and universities and their level of understanding of export control is insufficient. This would significantly hinder the services and projects for associate member corporations which do pay membership fees. Although this is a worrisome point, it is an important task for CISTEC to provide sufficient and reasonable services to SMEs and universities as well as associate member corporations because there have been many requests to do so.

In 2010, as a consignment project from METI, CISTEC established a counseling service for SMEs and dispatched experts, but unfortunately this project was canceled due to government financial restrictions. However, although it was performed for only a few months, nearly a thousand consultations and dispatches took place, magnifying the need for these services.

CISTEC is now working on the following measures by keeping in mind the above-mentioned issues and the results of past efforts:

1. *Publication of basic teaching materials and free web seminars on CISTEC's website*

CISTEC has published explanation materials, Frequently Asked Questions, exercise materials, and web seminars that provide the basics of export control rules and practices. In addition, e-learning materials based on past certification examination questions are published on the website. All of these are free of charge services.

2. *Providing classification and internal system assistance services*

As mentioned previously, CISTEC's classification assistance service is fee-based, but about 20 SMEs do use this service per month. The full support service covers classification services and basic export control guidance services. Therefore, using it has advantages that are worth the cost for SMEs who cannot employ expert staff.

In addition, as mentioned above, the system development support service is also fee-based. However, the use of this service by SMEs is increasing because its advantages are worth the cost.

3. *Providing inexpensive DVD fee-based seminars*

Such DVD seminars are useful even for SMEs because employees can use them at any time or place.

Export control and academia

Since universities are a major source of sensitive technology and can be used to facilitate harmful activities against Japan, their efforts to enhance export control are indispensable. However, university environments are different from those of industry. For example, university researchers are very independent and are not subject to systematic management under the president's direction. They also possess vectors in the direction of publishing research results and often have an insufficient understanding of the influences of their research on national security. Even if a university secretariat has sufficient knowledge of export control, it is not easy for them to convey the importance of these controls to researchers.

METI and Japan's Ministry of Education, Culture, Sports, Science, and Technology (MECSST) have been jointly urging universities to strengthen their export controls. METI has been preparing and publishing guidance for universities and research institutions, frequently holding seminars for universities, and dispatching export control advisors to universities. MECSST, which is in charge of export control at universities, has been particularly focusing on export control for the past three years and has been urging universities to establish export control systems, rules, and practices by leveraging research funds from grants.

CISTEC established a university membership program in 2009 and has been offering seminars, consultations, basic book guidance, and more, partly free of charge or for an inexpensive fee. Currently CISTEC has 44 university members. CISTEC has also been dispatching lecturers to universities for internal training and providing internal system assistance services and web-based seminars from managers of METI, MOFA, and MECSST. The CISTEC website has established a free portal site for universities which provides important information on export controls free of charge.

In 2014, CISTEC and five other organizations related to universities jointly created and submitted a "Joint request for comprehensive improvement of administration on universities' export control" to the Directors General of METI, MECSST, and the Ministry of Foreign Affairs (MOFA). CISTEC was in charge of this initiative and drafted the joint request. The initiative called for the improvement of about 20 items with the aims of making the original educational and research functions of the university effective, coping with new situations under international competition, and preventing unintentional leakage of sensitive technologies. In response to this joint request, METI and MOFA have made improvements in clarifying and rationalizing export control interpretation and practices and MECSST has established a system for actively engaging universities' export controls, thereby urging universities to enhance their systems. Since then, CISTEC has played a central role in rationalizing and streamlining export control rules and regulations related to universities.

It is important to prevent the unintended leak of sensitive technology, not only pertaining to export controls, but also to trade secret protection, which is indispensable in industry-academic

collaborative research, cyber security, biosecurity, and being aware of leaks of sensitive technology to countries of proliferation concern through the publication of papers and patent applications. CISTEC has been alerting universities to the necessity of these measures and the importance of compliance.

Clarification and rationalization of procedures related to the transfer and export of defense equipment and technology

CISTEC is not involved in the development and production of defense equipment even if CISTEC's associated member companies include major companies that produce defense equipment. While the export control departments of those companies participate in the committee activities of CISTEC, the sales or defense equipment production departments do not participate.

Naturally, defense equipment departments have a strict confidentiality obligation in relation to the Ministry of Defense of Japan and the U.S. government, and even within the same company, there is a firewall between the department in charge of dual-use items and the defense equipment department. It should be noted that CISTEC is in charge of research and proposals on export control rules and procedures of defense equipment and technology and is not in charge of business promotion, research, or development.

Therefore, it is not possible for CISTEC to deal with the development of defense equipment and the provision of technical information. There are separate organizations in charge of these areas and the inter-industry dialogue is conducted with European and American defense industries.

CISTEC contributes to the clarification and rationalization of procedures related to the transfer of defense equipment and technology. In April 2014, the "Three Principles on Arms Exports" was abolished and replaced by a new guideline called the "Three Principles on Transfers of Defense Equipment and Technology." As a result, the transfer of defense equipment and technology can be licensed under certain principles and conditions. However, from the perspective of private companies (apart from government-led projects), it was almost impossible for Japanese industries to conduct smooth negotiations and inquiries or proceed with the private-sectors' international joint development on defense equipment and technology because the legal rules and procedures were not sufficiently clarified and rationalized.

In Japan, exporting weapons was almost exclusively under government-led export on the basis of the "Three Principles on Arms Exports" for the last half century, and thus the details of the rules and procedures were not clarified and rationalized compared with those for the export of dual-use items. For example, the definition and scope of "weapons" and "military technology" are not clarified and the weapons listed under the Japanese Foreign Exchange and Foreign Trade Law is not stipulated in detail like the Wassenaar Arrangement's Munitions List. Therefore, even in cases of responding to initial inquiries, CISTEC could not be sure as to whether or not the technical transfer to the customers in those cases would be legal under the Foreign Exchange and Foreign Trade Law. Bulk licenses and general licenses in cases of transfer of defense equipment and technology, which are indispensable for continuous transactions, have not been adopted yet in this area. If a license were always required to provide military technology, unless it is publicly available, it would be very difficult to advance negotiations.

Such problems were not well understood even in the Ministry of Defense and defense equipment departments of defense-related companies, which lacked experience in the dual-use export control space.

In light of the knowledge and experiences accumulated over many years on dual-use export control definitions, regulations, and procedures, CISTEC reviewed the following subjects and submitted written requests which summarize the results of the review to relevant ministries such as METI, the Acquisition, Technology & Logistics Agency, the National Security Secretariat (NSS), and others as materials for consideration within the government:

- i. What points should be clarified and rationalized for exhibitions and initial business negotiations/inquiries related to defense equipment and technology;
- ii. In what cases should bulk licenses and general licenses be adopted;
- iii. How should the weapons listed under Japan's Foreign Exchange and Foreign Trade Law be clarified in light of the Wassenaar Arrangement's munitions list.

The government considered CISTEC's requests and took necessary measures, thereby gradually resolving the above-mentioned problems. In this way, based on long-standing knowledge and experience, CISTEC's role is to precisely analyze export control issues and subsequently make proposals that facilitate legitimate business and trade.

Conclusion

This article has demonstrated that the "CISTEC model" in Japan's export control system has developed on the basis of accumulating experience over many decades and that CISTEC is important to both industry and government authorities. Therefore, CISTEC has been effective in making a positive impact on Japanese export controls. The following elements can be identified as contributing to its effectiveness:

Japanese cultural and social factors

In general, the Japanese respect harmony and put a high importance on avoiding conflicts, hatred, and retaliation. In addition, there is a high degree of law abidance, condemnation of legal violation, a spirit of information-sharing and helping, and a cooperative climate between government and industry. These are factors that cannot be ignored in terms of ensuring the effectiveness of Japan's export control system.

Inheritance of common memories that lack of export control compliance would cause a crisis of corporate survival

The case of the COCOM violation by a major Japanese machine tool manufacturer in the latter half of the 1990s, after which CISTEC was established for the prevention of such violations, has been deeply engrained as a common memory that lack of export control compliance would cause a crisis of corporate survival. Japan therefore takes export controls very seriously. For

example, even without a serious violation of export control laws and regulations, a bulk license can be revoked due to non-compliance with ICPs and thereby cause a major disadvantage in business activities. These factors make CISTEC's roles and activities indispensable.

Although the "CISTEC model" has attracted much attention from countries outside Japan, it is not clear whether a similar model would function effectively in other jurisdictions. Of course, it is common in any country for industry to wish to enhance their compliance through ICPs and government authorities should give incentives for these companies to do so. However, the question of which specific methods of cooperation between government and industry are most appropriate for enhancing the level of export control in a given country would depend on individual circumstances and background. In Japan, due to the above-mentioned background, as a result of nearly three decades of effort from government and industry partners, the "CISTEC model" has developed into what it is today. Other countries should thus develop suitable models in accordance with their own circumstances and backgrounds.



Commentary: Attracting the Best and Brightest to Strategic Trade Careers

JOSHUA L. DARNELL AND JOSHUA N.K MASSEY ¹

The field of security studies increasingly attracts the attention of top-level students. As instructors at the University of Georgia's (UGA) Center for International Trade and Security (CITS), one of our challenges is reconciling common misconceptions about national security careers without diminishing student enthusiasm for their chosen career path. Involving students in CITS' training and outreach efforts is one tool that has proven effective in achieving this goal while drawing the attention of our top security-minded students to the field of strategic trade.

The students accepted into UGA's Richard B. Russell Security Leadership Program (SLP) and Master of International Policy Program (MIP) hail from a variety of personal backgrounds and fields of study representing the social and hard sciences. Nearly without exception, these applicants share two traits: They are devoted to the idea of a career in security policy and they are situated among the highest quartile of their academic cohort.

This level of interest from top-tier students is not surprising. The programs allow security-minded students the space and credit hours to seek out their own corner of a growing and increasingly complicated professional field. Over their history, alumni from the SLP and MIP entered nearly every security-related corner of the private and public sectors. Before any of them make it that far however, they must answer one question during their selection process: "Where do you see yourself working after graduation?"

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As instructors in the strategic trade field, we exist simultaneously as educators and as practitioners. Thus, our motivation to inform students about the importance of strategic trade management and its potential as a career path is twofold. As educators, we have a duty to introduce our undergraduate and graduate students to career options that will be relevant, challenging, and fulfilling in the long term. As practitioners in the management of strategic trade working with government and private sector entities, we have a duty to ensure that bright, security-minded students continue to find their way into this fascinating and vital field of work.

We pursue the completion of this duty along two fronts. First, we structure our curriculum in a way that emphasizes the interconnectedness of all facets of the modern national and international security paradigm. The inter-agency process and the “whole of government” approach are featured throughout our coursework. The work of prominent U.S. agencies such as the FBI and CIA is important and exciting, but, in the end, the work of the individuals serving in these more popular organizations support the same overarching objectives as the work of individuals serving in entities that are lesser known to the public. We take time in the classroom to highlight and demonstrate how less familiar offices and programs such as the Department of Commerce Bureau of Industry and Security (BIS), the Department of State Export Control and Related Border Security (EXBS) program, and the Department of Energy International Nonproliferation and Export Control Program (INECP) perform vital security functions.

Second, and perhaps more importantly, we create opportunities by which our undergraduate and graduate students can engage in the real work of strategic trade management and nonproliferation from the moment they begin our programs. This is achieved by encouraging participation in any one of the training and outreach events hosted at UGA’s Center for International Trade and Security (CITS). The goal is to let this practical experience be a shaping force in their educational process as future practitioners and policy makers, rather than asking the students to complete an arbitrary set of sanitized academic tasks before setting them loose into the professional wilderness. In short, our academic affiliation places us in the fortunate position of playing bridge builder instead of gatekeeper. The great value in this approach is that our student’s exploration of theoretical debates and mastery of the scholarship coincides, and subsequently is informed by, engagement with practitioners. By heavily and deliberately incorporating the experiential approach into our student programs, we have been able to foster in our students a greater awareness of and interest in the field of strategic trade management with results that have borne out well for both the students and the field as a whole.

Opportunities to participate and engage in training and outreach events arm our students with a broad and mature understanding of the security challenges facing the international community. Such events provide a forum for students to apply what they have learned in the classroom while testing their ideas for future policy research against the reality of practical engagement. Training and outreach events provide our students with exposure to the invaluable practical experience and insights of an international professional audience.

Students also benefit from the opportunity to interact with representatives from a variety of U.S. government agencies working at these events. Their conversations with U.S. and foreign government officials often illuminate practical issues that have gone unexplored in the classroom. These engagements and experiences sensitize students to the perspectives that drive the day-to-day efforts of the strategic trade management and nonproliferation communities.

The benefits to all sides in this arrangement are manifold. On one hand, the presence and engagement of the students allows CITS to better manage the needs of the participants, while, on the other hand, the participants benefit from a chance to interact with students who can share knowledge of the campus and the surrounding area.

The greatest beneficiaries in this arrangement, however, are undoubtedly the students, most of whom are having their first real experience attempting to cultivate a cordial working relationship with a representative from another country. Since the setting is fundamentally academic in nature, the stakes are lower than they might be in a traditional government-to-government engagement, permitting the students to build confidence in their own capacity for international outreach even as their fundamental competencies as strategic trade practitioners remain a work in progress. It is not uncommon for students with little to no previous appetite for preparing and executing this kind of engagement to come away from their experience having developed a taste for it, even if they had not previously considered international outreach and implementation work as a professional possibility.

The constructive results of this experience serve to emphasize the extent to which opportunities for practitioner engagement—especially across country borders—can serve to engender an interest in the field of cooperative strategic trade management where such interest may not have previously existed in the student's mind. Collaboration with international partners in pursuit of a common goal, even if not at the highest levels of diplomacy, can be an exceptionally gratifying and influential experience that leads students to reconsider their career paths.

Replicating such opportunities as the Security and Strategic Trade Management Academy, which sometimes hosts up to 80 participants, may not be practical for all institutions training students in strategic trade. Fortunately, there is anecdotal evidence to suggest that small-scale engagements can be equally beneficial for all involved. Over the years, we have hosted numerous training events and cooperative workshops such as the Department of Energy's Asian Fellow's program with eight to twelve representatives from the strategic trade management sectors of foreign governments and private entities. In such cases, undergraduate and graduate students have been given similar opportunities to serve as guides, facilitators, and, in the case of more advanced graduate students, instructors for these training sessions. The observed effects on student enthusiasm for the field of strategic trade management before engagement and after engagement have been similar to those observed for the larger events. Involving students meaningfully in practitioner-oriented engagements tends to increase their interest in careers related to strategic trade-related outreach and capacity-building even in cases where the student has little to no prior exposure to the field or its fundamental subject matter. As an added benefit, the students enter the workplace able to more confidently engage with strategic trade professionals from outside the United States.

For a field that often enjoys only modest name recognition, students are surprised to learn of the ample career opportunities available to those well versed in strategic trade. Students grow to see that these opportunities exist across a host of U.S. Government agencies, international organizations, nonprofits, consultancies, and private industry. Each of these entities require employees knowledgeable of strategic trade practices to perform a range of functions from licensing and legal advising to internal compliance and law enforcement. For earnest students, a practical understanding of strategic trade can greatly expand the range of career options and

open doors to careers that were previously unimagined.

Underneath student aspirations for a security-oriented career conducting espionage or high-level diplomacy often resides a simple but genuine desire to be involved in meaningful work that contributes to the security of the nation and the international community. As educators and as practitioners, our challenge lies in effectively conveying the role of strategic trade management as a potent instrument of foreign policy and an essential component to international security. We have found that carefully structuring curriculum to highlight the interconnectedness of contemporary security challenges and supplementing that curriculum with experiential opportunities is an effective way to draw the attention of our best and brightest students to the abundance of promising careers in the field of strategic trade management.