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COCOM Is Dead, Long Live COCOM: Persistence and Change in Multilateral Security Institutions

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Members of the Co-ordinating Committee for Multilateral Export Controls (COCOM) agreed to disband this 'economic arm of NATO' as of March 1994. Despite the demise of COCOM, member states agreed to continue applying their existing export control policies and, in December 1995, replaced COCOM with the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies. Such actions are in contrast to conventional views about a likely decline in co-operation among COCOM members with the end of the Soviet threat. After providing a brief history of COCOM operations, we derive six categories of multilateral co-operative behaviours and assess evidence for COCOM in each category for two five-year periods, 1985–89 and 1990–94. We find that multilateral co-operation in this security institution not only increased in most categories in the last years of the Cold War, but increased in *every* category after 1989. We then review the possible explanations for the increase in co-operation, and find that the emergence of a liberal community identity among COCOM members explains this outcome better than more conventional theoretical approaches.

So soon, however, as ultimate victory seems assured, the consciousness of separate interests tends to overshadow the sense of common purpose … And the jealousies, rivalries and suspicions which in any protracted war arise between partners to an Alliance generate poisons which war-wearied arteries are too inelastic to eliminate.
Harold Nicolson, *The Congress of Vienna*[1]

After more than forty years service as the Western economic bulwark against Soviet communism, the member states of the Co-ordinating Committee for Multilateral Export Controls (COCOM) agreed to disband the arrangement with effect from 31 March 1994.[2] The member states of COCOM failed to agree on the creation of a new mechanism to co-ordinate their respective export control policies by this self-imposed deadline. The same officials, however, continued

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[1] Harold Nicolson, *The Congress of Vienna, A Study in Allied Unity: 1812–1822* (New York: Harcourt Brace Jovanovitch, 1946), p. 51.

[2] 'COCOM: An End and a Beginning', *Defence Trade News*, 5, No. 2 (1994), 4–5.

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to meet in working groups to transform COCOM into a non-proliferation export-control arrangement. In the interim, COCOM members pledged to apply their existing export control laws and regulations.[3] On 19 December 1995, these states and eleven others officially replaced COCOM with the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies.[4]

As early as 1990, some scholars predicted or advocated the end of controls on trade in strategic items generally (goods, technologies, and services) and an end to COCOM specifically.[5] Intuitively, one might expect a decline in co-operation among former members of COCOM. After all, the collapse of the Warsaw Treaty Organization (WTO) in the last days of 1989 and the subsequent disintegration of the former Soviet Union virtually eliminated the political-military threat that spawned COCOM.[6] From either a realist or a neoliberal perspective, these conditions should reduce the value of COCOM and the demand for multilateral co-operation on export controls by COCOM members. On a domestic level, exporters should increase their demand for more liberal licensing or enforcement (though some exporters may wish other countries to maintain strict controls to limit competition). In recent congressional hearings, for example, many US industry associations testified in favour of a dramatic relaxation in national security and foreign policy export controls.[7]

Oddly, co-operation in COCOM, the institutional embodiment of Cold War trade relations, not only persisted well after its fundamental strategic purpose faded, but appeared to thrive. COCOM members, for example, created a new 'core list' of dual-use items (goods and technology with primarily commercial but also military uses) in October 1990. By 1992, they had harmonized their export control policies to meet the more stringent objectives of the Common Standard of Effective Protection identified in January 1988. While the demise of COCOM ended the old process of multilateral licence review, the higher standard of harmonization maintained the arrangement much as before. Moreover, the Wassenaar Arrangement has former COCOM members (and

[3] Karen Fossli, 'Accord near on COCOM successor', *Financial Times*, 8 November 1993 (can be found in the on-line service Lexis).

[4] See 'Wassenaar Arrangement (a.k.a. 'New Forum') to take place of COCOM', *Export Practitioner* (January 1996), pp. 7–8; and 'US, allies agree to launch new post-COCOM export regime', *BNA International Trade Daily*, 20 December 1995, in Lexis.

[5] Peter Van Ham, 'Western Economic Statecraft in an Era of Communist Reform: How Can the West Help?' *Bulletin of Peace Proposals*, 21 (1990), 227–38.

[6] Michael Mastanduno, *Economic Containment* (Ithaca, NY: Cornell University Press, 1993); and Gary K. Bertsch and Steven J. Elliott-Gower, eds, *Export Control Policies in Transition* (Durham: Duke University Press, 1992).

[7] The House Foreign Affairs International Trade Subcommittee, which is the primary subcommittee referral for the Export Administration Act, for example, held four hearings in the summer and fall of 1993 on the issue. In these hearings, US industries voiced their antagonism to current policy virtually unopposed, because the Clinton administration did not reach agreement on its position in time to testify. Not until the hearings before the Senate Banking, Housing, and Urban Affairs Committee meetings in February 1994 did the administration present its views.

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other states) co-ordinating export control policies in another, very contentious issue-area: the global proliferation of military and dual-use items.

These puzzling bits of evidence argue for a more thorough exploration of how co-operation among COCOM states evolved with the end of the Cold War. Often called the 'economic arm' of the North Atlantic Treaty Organization (NATO), COCOM allowed the West to fortify diplomatic protest and propaganda while avoiding the risks of military threats or intervention for over forty years. As David Baldwin observes, this made COCOM and export controls the best alternative form of statecraft available.[8] With governments now applying export controls to a host of international disputes, understanding how COCOM members co-operated has wider implications for developing policy tools for the post-Cold War world.

After a brief background on COCOM operations before the late 1980s, we discuss some methodological problems in measuring changes in the level of multilateral co-operation that pertain to COCOM and export controls. We derive six categories of multilateral co-operation, and then assess the evidence for two five-year periods, 1985–89 and 1990–94. We find that multilateral co-operation among COCOM members *increased* after 1989. In addition, the norms, rules, procedures and practices of the emerging post-COCOM institutional arrangement appear to sustain many values and operations of COCOM. We then consider four explanations (realism and neorealism; rational institutionalism; domestic pressures; and liberal community identity) for the increase in co-operation among COCOM members after the end of the Cold War. After assessing the support for expectations derived from each explanation, we conclude that the emergence of a liberal community identity among COCOM members explains this outcome best.

BACKGROUND

By 1949, the United States, France, the United Kingdom and other West European states saw the need to create a multilateral forum to co-ordinate their controls on the export of strategic goods to the Soviet Union and its allies.[9] Belgium, France, Italy, Luxembourg, the Netherlands, the United Kingdom and the United States began co-ordinating their export controls at a working-group level through COCOM in 1950.[10] In that same year representatives from Canada, Denmark, Norway and West Germany joined COCOM, followed by

[8] David A. Baldwin, *Economic Statecraft* (Princeton, NJ: Princeton University Press, 1985), p. 250.

[9] Mastanduno, *Economic Containment*; Mastanduno, 'Trade as a Strategic Weapon: American and Alliance Export Control Policy in the Early Postwar Period', *International Organization*, 42 (1988), 121–50; and Hendrick Roodbeen, *Trading the Jewel of Great Value: The Participation of The Netherlands, Belgium, Switzerland and Austria in the Western Strategic Embargo Versus the Socialist Countries* (Leiden: Rijksuniversiteit, 1992).

[10] In November 1949 these states had established an informal Consultative Group (CG), but extensive co-ordination of export controls required close contact at the operational level.

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some from Portugal in 1951, Japan in 1952, Greece and Turkey in 1953, Spain in 1985 and Australia in 1989. In addition, Austria, Finland, Hong Kong, Ireland, New Zealand, Sweden and Switzerland eventually adopted policies that complemented COCOM controls. COCOM acquired a small secretariat of around two dozen people to help in these tasks. A small and secretive organization, COCOM operated from an annex to the US embassy in Paris.

In COCOM, the member states met to establish and update lists of controlled exports (goods and technologies) to proscribed countries. Members defined items through three lists: (1) the International Munitions List (IML); (2) the International Atomic Energy List (IAEL); and (3) the often controversial International (Industrial) List (IL) of dual-use items. Items on these lists were identified as strategic, in that these goods and technologies would make a significant contribution to the military potential of proscribed countries, especially the Soviet Union.

COCOM published no official list of proscribed destinations or targets (nor anything else). An examination of the lists of proscribed destinations by British, Dutch and US authorities, however, indicated that the targets of COCOM controls in the mid-1980s were Afghanistan, Albania, Bulgaria, Cambodia, Czechoslovakia, Cuba, the German Democratic Republic, Hungary, Laos, Mongolia, North Korea, the People's Republic of China, Poland, Romania, the Soviet Union and Vietnam.

Decisions on some licences were subject to COCOM review. These licence decisions, and decisions to modify the lists of controlled items or proscribed countries, required unanimous consent. This meant that the country with the most stringent control standards, generally the United States, held a veto over all licences subject to review and over the deletion of items. The United States, however, usually asked for the most exceptions and the most changes in the list, giving other states considerable influence in the decision-making process. In addition, states could threaten to withdraw or unilaterally decontrol items to prompt a substantive change. Threats of unilateral action were most credible as rule compliance within COCOM depended on national implementing legislation, national licensing procedures and national enforcement activities. In particular, the penalties for non-compliance – against offending individuals, private companies or public enterprises – were solely in the province of national legislation. Throughout much of its history, the absence of harmonized compliance policies and practices among its members plagued COCOM interactions.[11]

COCOM also became a forum for discussing export control issues. Topics included national export control policies, threat assessments, foreign availability, new military technologies, technology transfers and enforcement

[11] See, for example, Panel on the Impact of National Security Controls on International Technology Transfer, *Balancing the National Interest: US National Security Export Controls and Global Economic Competition* (Washington, DC: National Academy Press, 1987), pp. 135–7; and Mastanduno, *Economic Containment*, *passim*.

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activities. In most member states, ministries other than foreign affairs had direct or indirect influence on COCOM decisions. These included ministries of industry, trade, commerce, and defence, along with customs agencies, though the bureaucratic mixture varied from state to state. Although direct individual or industry contacts with COCOM were rare, larger member states, particularly the United States, developed extensive contacts with US and foreign enterprises on export controls. Reporting requirements, often a large flow of communication, and regular multilateral meetings meant that export controls appeared regularly on the political agenda, inducing member states to articulate their policy positions.

OPERATIONALIZING INCREASED MULTILATERAL CO-OPERATION ON EXPORT CONTROLS

Despite the proliferation of studies of international co-operation, few works develop specific measures of co-operation. More specifically, no study attempts to measure explicitly the degree of multilateral co-operation on export controls.[12] Event data sets, such as the Conflict and Peace Data Base and World Events Interaction Survey, identify numerous measures of co-operation, but these remain controversial.[13] In addition, event data sets are not designed to focus on co-operation within a specific institutional setting.

We take co-operation to mean the adjustment of policies to the preferences and actions of others, contingent on others altering their behaviour, through a voluntary process of co-ordination.[14] We also take it as axiomatic that increased communication and information sharing is likely to enhance co-operation.[15] Within an institution, at least two kinds of *policy adjustments* exist: adjustments corresponding to changes in *substantive rules* and adjustments in *procedural norms*.[16] COCOM members engaged in substantive rule construction in

[12] Lisa Martin, *Coercive Co-operation: Explaining Multilateral Economic Sanctions* (Princeton, NJ: Princeton University Press, 1992), does use the number of countries that apply export controls as a measure of the extent of co-operation, but does not fully examine changes in the degree of co-operation over time.

[13] Lewellyn D. Howell, 'A Comparative Study of the WEIS and COPDAB Data Sets', *International Studies Quarterly*, 27 (1983), 149–59; and Jack E. Vincent, 'WEIS vs. COPDAB: Correspondence Problems', *International Studies Quarterly*, 27 (1983), 161–8.

[14] Robert Keohane, *After Hegemony* (Princeton, NJ: Princeton University Press, 1984), pp. 161–2; Helen Milner, 'International Theories of Co-operation Among Nations: Strengths and Weaknesses', *World Politics*, 39 (1986), 466–96; and Joseph M. Greico, *Cooperation Among Nations: Europe, America, and Non-Tariff Barriers to Trade* (Ithaca, NY: Cornell University Press, 1990), pp. 22–5.

[15] Not all share this view. Grieco, *Cooperation Among Nations*, finds that participants in the GATT Non-Tariff Barrier code committees that met more often were those having the most trouble achieving co-operation.

[16] Steven D. Krasner, 'Structural Causes and Regime Consequences: Regimes as Intervening Variables', in Steven D. Krasner, ed., *International Regimes* (Ithaca, NY: Cornell University Press, 1983), pp. 1–21, esp. at p. 3; and Oran R. Young, *International Cooperation: Building Regimes for Natural Resources and the Environment* (Ithaca, NY: Cornell University Press, 1989), pp. 15–19.

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three areas: adding, deleting or modifying items on the control lists; adding, deleting or modifying the proscribed destinations; and making exceptions through the licence review process. The ability to *add* items to the lists, or modify specific items on them, clearly suggests greater co-operation. Given the interests member states have in promoting legitimate exports, deleting items might appear to require less, if any, co-operation. Building the necessary consensus to *delete* an item from the list, none the less, requires considerable co-operation. Analogous efforts in domestic deregulation, negotiations to reduce global trade barriers, and negotiations to distribute the spoils of victory in post-war military alliances also infer that reductions in export controls require an additional dose of co-operation. As Emerson Niou and Peter Ordeshook contend, even when governments face multiple equilibria, all of which produce an improvement for each state, agreeing on a specific outcome requires new degrees of co-ordination and co-operation.[17]

While the actual decision-making procedures changed little in forty years, between 1950 and 1960 *procedural norms* in COCOM did change considerably from 'compliance' to 'compromise'.[18] Under a compliance decision-making norm, policy tools include unilateral controls, threats or sanctions directed against non-compliant members, behaviour outside the institution inconsistent with the objectives of the arrangement, and outright coercion.[19] In contrast, under a compromise decision-making norm, policy makers embrace multilateral controls, promises or rewards for improved compliance, behaviour outside the institution more consistent with the goals of the arrangement, and volition. Rules on representation and membership are also important elements of decision-making procedures.[20] While all members can participate in COCOM decisions (though not all choose to do so), not all countries can be members of COCOM. To add members to COCOM requires more co-operation among COCOM members (who must agree to admit the participant). It also requires greater co-operation between COCOM members and non-members trying to accede to the organization.

From this discussion, we expect that at least six behaviours should reveal changes in co-operation among COCOM members during the transition from the Cold War to the post-Cold War era. Regarding *communication and*

[17] Emerson M. S. Niou and Peter C. Ordeshook, 'Realism versus Neoliberalism: A Formulation', *American Journal of Political Science*, 35 (1991), 481–511; Keohane, *After Hegemony*; and Arthur A. Stein, *Why Nations Cooperate* (Ithaca, NY: Cornell University Press, 1990).

[18] Beverly Crawford and Stephanie Lenway, 'Decision Modes and International Regime Change: Western Collaboration on East–West Trade', *World Politics*, 37 (1985), 375–402. They argue that over time both compliance and problem-solving decision-making modes give way to compromise as the key decision-making mode in international institutions.

[19] Crawford and Lenway, 'Decision Modes', pp. 381–2. We ignore problem-solving strategies because these largely involve an increase in the sharing of undistorted information, and may not be incompatible with most compromise strategies.

[20] Werner J. Feld and Robert S. Jordan with Leon Hurwitz, *International Organizations: A Comparative Approach*, 2nd edn (New York: Praeger, 1988), p. 125.

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information sharing the following behaviour should reveal an increase in co-operation:

—increasing frequency of communication and information sharing at both the working group and higher policy-making levels on policy, licensing, intelligence and enforcement issues.

For *substantive policy adjustments* increased co-operation should show:

—greater harmonization of national export control laws, regulations, procedures, and licensing and enforcement practices;
—achieving the necessary consensus to make significant additions or deletions from the list of controlled items, both in the number of items or in their nature; and
—achieving the necessary consensus to add, delete or modify proscribed destinations as targets of the controls.

Finally, the following *procedural policy adjustments* should indicate increased co-operation:

—increasing use of compromise policy tools (and decreased use of compliance policy tools); and
—achieving the consensus needed to bring new members into the arrangement or increase policy co-ordination with non-members.

Based on these six categories, for example, increasing divergence in national export control policies and less information sharing and contact among COCOM adherents would characterize reduced co-operation.

The study examines co-operation among COCOM members for the later Cold War (1985–89) and early (1990–94) post-Cold War periods. We chose 1989 to divide the study because in that year the communist regimes of Central Europe collapsed, the WTO ceased to pose a practical military threat, and the political threat raised by Soviet-style communism ended. Throughout the 1985–95 period either the benefits from abiding by COCOM rules declined or the sensitivities of COCOM members to other members' relative gains increased – or both. Our general proposition is that co-operation in COCOM should be found to decrease from 1985 to 1994 and that the decrease should be especially significant after 1989.[21]

[21] The data come from a variety of government documents, publications, some private communications and dozens of interviews with US and foreign officials who took part in COCOM and post-COCOM decisions. US officials include those in the Departments of Commerce, State, Energy, and Defense. Overseas, officials were situated primarily in the ministries of foreign affairs, international trade, and defence. The interviews were conducted by one author from July 1992 through February 1995, and in February 1996, and by the other author in May and June 1995. Generally, if the data is not corroborated by at least three sources, including at least two public sources, it is preceded by words such as 'alleged' or 'reported'.

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TABLE 1 *Adaptation of COCOM*

Signs of co-operation	Early Gorbachev years (pre-December 1989)	Late Gorbachev/ post-Soviet era (post-January 1990)
Communication and information sharing	Increase • First meeting of licensing officers and exchange of information on licence procedures • Semi-annual HLM (established in 1982)* • Created COCOM Executive Committee	Increase • Two-year list review cycle • Created tbe COCOM Co-operation Forum (CCF)† • Created working groups to develop the new arrangement • Created the Wassenaar Arrangement‡ • Missions to non-COCOM states
Substantive policy adjustment: harmonization	Increase • Intra-COCOM controls relaxed • Common standard of effective protection introduced	Increase • Common standard of effective protection achieved • Move towards an intra-COCOM licence-free zone
Substantive policy adjustment: additions/deletions to lists	Stable • 1986 – 129 items on the IL§ • 1988 – 126 items on the IL • 1989 – 119 items on the IL • 1989 – end to ‘no exceptions’ policy towards the Soviet Union	Increase • 1990 – 116 items on the IL reduced to 80 • 1991 – adoption of Core List, 78 items controlled • 1992–94 drastic cuts in restrictions on telecommunications and computer items
Substantive policy adjustment: classification of targets	Stable • Soviet Union, WTO members, Albania, China, North Korea, Mongolia, Cambodia and Vietnam	Increase • Categories emerging: De-proscribed Favourable consideration CCF special status

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Procedural policy adjustment: membership/participation	Small increase • Spain joined in 1985 and Australia in 1989 • Began Third Country Initiative negotiations with Austria, Finland, Singapore, Sweden and Switzerland	Radical increase • Basic COCOM membership stable, but working with former targets • Completed Third Country Initiative negotiations with Austria, Finland, Hong Kong, Ireland, New Zealand, Sweden and Switzerland • Wassenaar Arrangement has 28 members
Procedural policy adjustment: compromise decision strategies	Small increase • 1987 – US decontrolled seven unilaterally controlled items • 1988 – US decontrolled one of its unilaterally controlled items • 1989 – US began eliminating all items controlled unilaterally only for purposes of national security	Increase • US continues to shift from unilteral to multilateral basis for controls • German – US compromise on relaxing controls on computers and telecommunications items • Wassenaar Arrangement relies on prior notification rather than prior approval

*HLM stands for high-level meeting.

†The COCOM Co-operation Forum, created in June of 1992, was an attempt to include the post-communist governments of Eastern Europe and the former Soviet Union, and a number of European neutrals, in the transformation of COCOM. De-proscription awaited those states that completed the legal framework for licensing and enforcement of controls on indigenous goods and technologies. This approach was abandoned in favour of the Wassenaar Arrangement.

‡The Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies (Wassenaar Arrangement) was created on 19 December 1995 as a replacement for COCOM (see Table 2).

§IL stands for International (Industrial) List. This is the often controversial list of dual-use items that COCOM sought to control.

COCOM: PERSISTENCE AND ADAPTATION

As highlighted in Table 1, in four of the six categories – communication and information sharing, harmonization, participation and the use of compromise policy tools – co-operation among COCOM members increased in the later years of the Soviet empire. In the other two categories – list changes and targets – co-operation essentially remained stable or decreased for most of the period. One early omen of how these might change in the post-1989 era, however, was the end of the US policy of 'no exceptions' towards the Soviet Union in May 1989.[22]

After 1989, co-operation among COCOM members increased in virtually every way. Members created a spin-off institution, the COCOM Co-operation Forum (the CCF), before agreeing to develop a successor to COCOM. They also agreed to examine the lists more frequently. On a substantive level, COCOM members harmonized their national laws, regulations and enforcement procedures more fully, increased communication, and altered the item lists and proscribed destinations significantly. In key procedural areas, the use of compromise policy tools increased, while the number of countries participating in or co-operating with the arrangement radically increased. One can even interpret the technical death of COCOM as an effort to increase co-operation, because the member states were revamping the arrangement to fit post-Cold War circumstances better. After an interim period, COCOM members replaced the old institution with the Wassenaar Arrangement, whereby they control items entirely on the basis of national discretion. This approach presumes a high degree of harmonization, co-ordination and compromise among national policies for an effective arrangement (see Table 2).

WHY CO-OPERATION IN COCOM INCREASED: COMPETING EXPLANATIONS

At least four theoretical perspectives on international relations offer explanations for increases in co-operation. Each of these perspectives differs substantially in both their character and in their overall implications for co-operation. We limit the following discussion to what would explain an increase in co-operation, and what directions and shape that co-operation would take regarding export controls. To avoid tautologies, we refrained from using the evidence in Table 1. Though at times we may conflate direct measures of co-operation and explanations of co-operation in a theoretical discussion, this approach avoids our using measures of co-operation to explain why co-operation occurs.[23]

[22] Since 1980, after the Soviet invasion of Afghanistan, the United States had vetoed any exception requests for shipments to the Soviet Union.

[23] Communications activity, for example, can be portrayed both as a measure and an explanation of co-operation.

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TABLE 2 *The Wassenaar Arrangement at Inception Date (19 December 1995)*

Membership	• All COCOM countries plus Austria, the Czech Republic, Finland, Hungary, Iceland, New Zealand, Poland, Russia, the Slovak Republic, Sweden and Switzerland
Targets	• Although not published officially, Iran, Iraq, North Korea and Libya are recognized as focus areas
Lists	• Two parallel systems: conventional weapons and dual-use items • Dual-use items are categorized into three lists by degree of strategic sensitivity: basic, sensitive and very sensitive
Procedures	• Secretariat located in Vienna, Austria • No enforcement mechanism • National discretion • Prior notification rather than prior approval for exports • No presumption of denial • Reporting of arms sales twice a year • Reporting and control of dual-use exports varies on item sensitivity (basic is less stringent; very sensitive is most stringent)

Realism and Neorealism

The perspective of most realists, including Hans Morgenthau and E. H. Carr, generates a straightforward explanation for the increase in co-operation exhibited by COCOM members after 1989.[24] While emphasizing the fundamental interest in military security above other objectives, realists contend that states may see co-operation as a prudent behaviour aimed at balancing a specific threat.[25] Constant attention to the relative gains in power, however, eventually undermines international co-operation without a specific threat or potential hegemon.

Co-operation, when it occurs, will favour the most powerful members of any coalition. As Carr notes, this means that those states must give lesser states other

[24] For a clear vision of realism, see Hans J. Morgenthau, *Politics Among Nations: The Struggle for Power and Peace*, 5th edn (New York: Alfred A. Knopf, 1973), especially pp. 448–87 and 504–48 for a realist view of international co-operation. The seminal realist work by Edward H. Carr, *The Twenty Years Crisis, 1919–1939* (New York: Harper Torchbooks, 1964), discusses co-operation most thoroughly on pp. 41–60 and 63–88. For a more recent representation of the realist perspective, see Grieco, *Cooperation Among Nations*.

[25] Stephen M. Walt, *The Origins of Alliances* (Ithaca, NY: Cornell University Press, 1987).

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inducements to elicit their co-operation.[26] Joseph Grieco amends this to say that stable forms of co-operation will emerge among powerful states only when the gaps in relative gains from co-operation do not substantially favour any particular partner.[27] Generally, states attempt to build co-operative relations that produce balanced and equitable gains, roughly similar to the distribution that existed prior to co-operation. Middle-level powers, however, should be the most sensitive to gaps in relative power from co-operation, as these gaps make them more susceptible to challenge from minor powers or domination by major powers.[28]

As for COCOM, a realist expects that rules and procedures should favour the major powers, but that the distribution of the costs and benefits among these states, including Britain, France, Germany and Japan, should be roughly equal. To attract the participation of smaller powers (such as Greece or Iceland), the larger powers should offer them additional benefits. It also follows that as the members of the WTO became less of a threat, then COCOM members might target their controls against other major powers and threats, or abandon the coalition.

Table 3 recounts our expectations in simplified form. We anticipate that COCOM members will target controls on emerging threats (i.e., states that have the power to threaten the coalition of members) or on the residual threat posed by the communist states. From this perspective, COCOM members should terminate or radically change the institution to reflect the fundamental change in the balance of power brought about by the collapse of the WTO. An increase in co-operation should not, however, produce a net change in the relative power of members. Finally, we expect that the more powerful COCOM members, especially the United States, will provide special inducements for the least powerful members to co-operate.

Rational Institutionalism

In contrast to the realist/neorealist positions, neoliberal rational institutionalists argue that sustained forms of international co-operation occur frequently, even under conditions of anarchy.[29] From this perspective, states co-operate to exploit opportunities for mutual advantage. While relative gain may be important, the opportunity for mutual, absolute gain serves as the necessary precondition for international co-operation.[30] In addition, no fixed hierarchy in balancing military and economic benefits exists, so governments may choose to achieve

[26] Carr, *The Twenty Years' Crisis*, pp. 168, 236.
[27] Grieco, *Cooperation Among Nations*, p. 44.
[28] Grieco, *Cooperation Among Nations*, p. 46.
[29] Kenneth A. Oye, ed., *Cooperation Under Anarchy* (Princeton, NJ: Princeton University Press, 1985).
[30] Duncan Snidal, 'International Cooperation Among Relative Gains Maximizers', *International Studies Quarterly*, 35 (1991), 387–403.

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TABLE 3 *Assessing Alternative Explanations for Increased Co-operation on Export Controls among COCOM Members after 1989*

Explanation and expected behaviour	Observed behaviour
Realism and Neorealism	
Balance new or residual powers	Positive
Terminate or transform institution	Positive
No net change in relative power	Mixed
Extra inducements for least powerful	Negative
Rational Institutionalism	
Fewer differences in policy preferences	Mixed
Reduced transaction costs and uncertainty	Mixed
Increased monitoring and enforcement	Mixed
Increased reliance on metanorms	Negative
Domestic Pressure	
Shift in interest group activity	Positive
Increased government response to pressure	Positive
Increased liberalization of largest markets	Mixed
Increased restrictions on biggest threats	Mixed
Liberal Community Identity	
Perceived success from previous co-operation	Positive
Increased respect for decisions of others	Positive
Increased restrictions for illiberal states	Positive
Decreased restrictions for liberal states	Positive

absolute economic gains over relative military advantage.[31] Finally, when leaders believe that interaction in one issue area will recur frequently, and that the end of the interaction is in some indefinite future, then states are more likely to co-operate.[32]

One neoliberal interpretation of the apparent puzzle of increased co-operation after 1989 is that 'harmony', not co-operation, increased among COCOM members. If the preferences of COCOM members became increasingly similar after 1989, then it might appear as if co-operation increased as their policy positions moved closer together, when, in fact, less policy adjustment to the preferences of others (i.e., less co-operation) took place. Generally, however, aligning specific policies requires more than harmony: it requires co-operation.

[31] Robert Keohane and Joseph Nye, *Power and Interdependence: World Politics in Transition* (Boston: Little, Brown, 1977).

[32] Robert Axelrod and Robert Keohane, 'Achieving Cooperation Under Anarchy: Strategies and Institutions', *World Politics*, 38 (1985), 226–54.

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Even a fortuitous constellation of a balance of power, an iteration of interaction, and a long shadow of the future cannot guarantee co-operation. Using insights from game theory, particularly the Prisoner's Dilemma, rational institutionalists describe how states can fail to co-operate even when Pareto-superior solutions are known and available. For rational institutionalists, international arrangements ease movement towards co-operation by diminishing uncertainty and reducing transaction costs. Institutions do not merely reflect power politics. They also aid states in making judgements about the interests, commitments and expected behaviour of themselves and others, helping to shape state preferences in the process.[33]

From this perspective, co-operation usually requires monitoring and verifying the behaviour of others, making threats and promises to elicit compliance and deter cheating, as well as delivering both punishments and rewards, in a variety of institutional settings. In particular, it seems to arise most often in settings where norms and rules encourage reciprocity, as suggested by simulations and the dominance of variants of Tit-For-Tat strategies. Robert Axelrod extends this argument to suggest that 'metanorms' (a norm to punish those that do not punish violators) are crucial to the emergence of co-operative norms.[34] Even arrangements that are generally self-enforcing, where the value of complying with an agreement outweighs the value of opportunistic violations of the agreement, tend to produce policies grounded in reciprocity. Parties are most likely to break such agreements, however, during periods of rapid change.[35]

Before the collapse of Soviet communism in Europe, rational institutionalists would expect COCOM members to monitor closely and verify compliance to COCOM norms, rules and procedures. Members would routinely use threats and promises, sanctions and rewards, when trying to create agreement in COCOM. They would also identify accrued costs and benefits clearly. Bargaining would occur, largely based on reciprocity, though members might make instrumental and empathetic calculations that could produce a starkly unequal distribution of mutual benefits and costs. Considering the likely decrease in the benefits from co-operation, COCOM members might shift their attention to new targets to exploit greater mutual gains, while attending to the residual threats from the existing COCOM targets.

From this perspective, we anticipate that the difference in policy preferences should narrow. Even if it does not, we also expect that COCOM members should reduce the transaction costs and uncertainty related to implementing export

[33] Keohane, *International Institutions and State Power*; and Niou and Ordeshook, 'Realism and Neoliberalism'.

[34] Robert Axelrod, 'An Evolutionary Approach to Norms', *American Political Science Review*, 80 (1986), 1095–111.

[35] B. V. Yarbrough and R. M. Yarbrough, 'Reciprocity, Bilateralism, and Economic "Hostages": Self-Enforcing Agreements in International Trade', *International Studies Quarterly*, 30 (1986), 7–21.

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control policies. Members should increase their efforts to monitor violations of COCOM norms, rules and procedures and increase the penalties for violations. In particular, we would expect members to turn increasingly to sanctions on other member states that are negligent in their duty to enforce COCOM controls (see Table 3).

Domestic Pressures

Another explanation emphasizes the importance of domestic groups in understanding international co-operation. Most of the research concerning this relationship, however, focuses on how domestic economic interests impede international co-operation in international trade.[36] Still, a few studies suggest that support for more liberalized trade arrangements can emerge when the domestic forces that favour import protection lose political power to those groups that favour growth in exports.[37]

The role of interest groups in foreign security policy, especially in arms control and non-proliferation, is much less clear. While Steven Miller identifies many domestic actors that have influenced the formation and ratification of US arms control policies since the 1950s, interest groups appear to have had almost no influence.[38] Similarly, Paul Evans, in examining cases of policy formation in the United States, Europe and the Middle East, found that 'initiatives in direct response to constituency pressure were surprisingly uncommon. This is especially clear in the case of security issues.'[39] Instead, initiatives from the executive 'awaken and mobilize' domestic forces, particularly opposition groups.[40] Even when mobilized, however, these forces do not always prove sufficient to alter policy.

Michael Mastanduno argues that domestic industry groups played an important role in defining the degree of co-operation among COCOM members from the mid-1950s to 1989.[41] When other members of COCOM perceived the United States as using the institution for commercial advantage, co-operation decreased (particularly in 1957–59, again during 1969–79, and in the early 1980s). From another domestic perspective, Etel Solingen found that

[36] Milner, 'International Theories of Cooperation Among Nations', pp. 104–22; and Edward D. Mansfield, 'International Institutions and Economic Sanctions', *World Politics*, 47 (1995), 575–605.

[37] See Peter F. Cowhey, 'Domestic Institutions and the Credibility of International Commitments'; Krasner, *International Regimes*; or Milner, 'Theories of International Cooperation'.

[38] Steven Miller, 'Politics Over Promise: Domestic Impediments to Arms Controls', in Charles W. Kegley Jr and Eugene R. Wittkopf, eds, *The Domestic Sources of American Foreign Policy: Insights and Evidence* (New York: St. Martin's Press, 1988), pp. 166–77.

[39] Peter B. Evans, 'Building an Integrative Approach to International and Domestic Politics: Reflections and Projections', in Peter B. Evans, Harold K. Jacobson and Robert D. Putnam, eds, *Double-Edged Diplomacy: International Bargaining and Domestic Politics* (Berkeley: University of California Press, 1993), pp. 403–30, at p. 403.

[40] Evans, 'Building an Integrative Approach', pp. 405–8.

[41] Mastanduno, *Economic Containment*.

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groups supporting economic liberalization have opposed nuclear programmes in some states because they perceive more economic benefits from adherence to non-proliferation norms.[42] Using a broader set of data, Lisa Martin contends that more co-operation on adopting and implementing sanctions took place when a leading power was willing to accept considerable costs. The influence of various domestic actors in imposing sanctions conditioned the extent of co-operation, as did the presence of an institutional forum within which sanctions could be co-ordinated.[43]

Pressure groups in the dominant trading powers, including the United States, Japan, Germany, the United Kingdom and France, have often mobilized in response to COCOM policies. This is especially true when economic interest groups seek a relaxation of controls, allowing them to export. Some firms might hope to limit the export potential of their competitors through support for a higher level of restriction. The need for access to the global marketplace for virtually every firm producing high-technology dual-use items, however, places severe constraints on this strategy. Consequently, if one accepts that the absolute security benefits available from COCOM decreased after the collapse of the WTO, then the member states should have much less interest in resisting interest group pressure to lower barriers on most items. and to remove more countries from the list of proscribed destinations.

From this perspective, one would expect domestic pressure groups to be active and effective in their efforts to relax COCOM export controls. Governments should become even more responsive to these efforts after 1989. One might also expect the most rapid and deep relaxation of controls to be directed at exploiting the largest and richest markets, with COCOM members promoting the relaxation of restrictions on their most competitive industries. Efforts to create new, broader controls should be tightly limited, designed to reduce the regulatory burden on exporters.

If co-operation among COCOM members had increased because of domestic pressures, we would have expected to observe at least four behaviours (see Table 3). The balance of interest group pressure in key member states would shift in favour of liberalization and non-proliferation (the direction taken by COCOM controls), and governments in those states would have been responsive to such pressures. Efforts to liberalize COCOM would focus on the biggest markets among the old targets. At the same time, efforts to institute controls on new targets would focus on the most significant threats faced by COCOM members.

Liberal Community Identity

Finally, the work of several scholars implies that an increase in co-operation among members of COCOM stems from these states being part of a pluralistic

[42] Etel Solingen, 'The Political Economy of Nuclear Restraint', *International Security*, 19 (1994), 126–69.

[43] Lisa Martin, *Coercive Cooperation.*

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community of liberal states.[44] As a liberal community (LC) matures and strengthens, co-operation among members increases across a broad range of institutional and other settings. Using social identity theory as its basis, this view suggests that an increase in co-operation among COCOM members reflects a larger phenomenon: the emergence of a new identity based more on a community of democratic and economically liberal states than on the individual states themselves.[45]

In the early 1960s, Karl Deutsch and others began to characterize the members of the North Atlantic Treaty Organization as part of a developing pluralistic security community.[46] Two decades later, Michael Doyle listed most 'Western' nations as members of an emerging LC to help explain the puzzle of the democratic peace. In developing the idea of a LC, Doyle shows that for nearly the last two hundred years: liberal states do not war against each other; liberal states usually side together in wars; and liberal states fight many wars against non-liberal states.[47] Doyle claims that the LC comprises more than forty states, most of which are found in Europe and North America.[48]

With the addition of Turkey to the LC in 1984, all the members of COCOM were also members of the LC (as were Australia and Spain when they joined COCOM in 1985 and 1989 respectively). According to proponents of this perspective, co-operation on security issues among members of this community should increase generally as the community matures, particularly when co-operation has proved successful in the recent past. From this perspective, one would anticipate that leaders of these states should link co-operation in export controls with the existence of a liberal community. As the realist Edward H. Carr noted about a world community, it exists 'for the reason (and for no other) that people talk, and within certain limits behave, as if there were a world community.'[49] If so, then increases in co-operation among COCOM members

[44] See Emanuel Adler and Michael N. Barnett, 'Security Communities' (paper delivered at the Annual Meeting of the American Political Science Association, September 1994), for an exhaustive review of the evolution of the concept of liberal security communities. Perhaps the most important recent work in this area is Michael Doyle, 'Liberalism and World Politics', *American Political Science Review*, 80 (1986), 1151–70, though the approach owes the greatest debt to the seminal piece by Karl Deutsch *et al*., *Political Community and the North Atlantic Area* (Princeton, NJ: Princeton University Press, 1957).

[45] For a classic work on social identity theory, see Michael A. Hogg and Dominic Abrams, *Social Identifications: A Social Psychology of Intergroup Relations and Group Processes* (New York: Routledge, 1988). For its application to international relations, see Alexander Wendt, 'Anarchy is What States Make of It: The Social Construction of State Politics', *International Organization*, 46 (1992), 391–425.

[46] Deutsch *et al*., *Political Community and the North Atlantic Area*.

[47] Doyle, 'Liberalism and World Politics', p. 1156. See Appendix 2 for a list of interstate wars, pp. 1165–6.

[48] Doyle, 'Liberalism and World Politics', p. 1156. See Appendix 1 for a list of current liberal states, p. 1164. Doyle derives this list based on four institutions mentioned by Immanuel Kant: market economies with private ownership of property; externally sovereign governments; judicial rights for citizens; and representative governments. In addition, Doyle considers widespread suffrage as an important indicator of a liberal regime. See the note at bottom of p. 1164.

[49] Carr, *The Twenty Years' Crisis*, p. 162.

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occurred throughout the 1985–94 period because COCOM members are part of the emerging LC, and because COCOM appeared to play a role in preserving Western advantages in military technology during the Cold War.

We expect a few other patterns of interaction among members of a LC, and between members and non-members of the community. What most distinguishes this explanation is that states base their range of enemies and allies specifically on a shared identity rather than on the distribution of power or the opportunity to exploit mutual advantage. Doyle, for example, predicts that the security policies of members of a LC should engage in differential targeting, tilting against illiberal more than non-liberal or other kinds of states.[50] Concomitantly, liberal states will be the most attractive potential partners to include in community institutions, on the presumption that democracies make the best allies.[51] Finally, community members should prefer the use of voice over exit strategies. The possibility that a member would leave the community would produce considerable alarm.[52]

Community members, as reflected in their institutional arrangements, will seek to promote freer trade with other liberal states, as freer trade will benefit the entire community. Community members, however, will not attune their policies specially to the relative benefits of other community members, since increases in the capabilities of others benefit the community as a whole. For the same reason, an imbalance of power and exchange among community members should not impede co-operation.[53] While this parallels the notion of generalized reciprocity, promises about the distribution of benefits to encourage compliance will most likely be universal, rather than specific, payments to individual targets.[54]

The institutions of a LC should also be democratic, emphasizing the use of compromise rather than threats.[55] Emanuel Adler and Michael Barnett suggest that as security communities go from a 'nascent' to an 'ascending' phase, the instrumental motto 'trust, but verify' becomes less relevant than 'trust' alone.[56] In particular, while wary of non-compliant behaviour and not always in agreement, community members should increasingly respect the systems and policy decisions of others members of the community. In this sense, members

[50] Doyle, 'Liberalism and World Politics'.

[51] Richard Ned Lebow, 'The Long Peace, the End of the Cold War, and the Failure of Realism', *International Organization*, 48 (1994), 249–77. Also see Adler and Barnett, 'Security Communities'.

[52] Adler and Barnett, 'Security Communities'.

[53] Adler and Barnett, 'Security Communities'; and John Gerard Ruggie, 'International Regimes, Transactions, and Change: Embedded Liberalism in the Postwar Economic Order', in Stephen D. Krasner, ed., *International Regimes* (Ithaca, NY: Cornell University Press, 1983), 195–231.

[54] Robyn M. Dawes, Alphons J. C. van de Kragt and John M. Orbell, 'Cooperation for the Benefit of Us – Not Me, or My Conscience', in Jane J. Mansbridge, ed., *Beyond Self-Interest* (Chicago: University of Chicago Press, 1990), pp. 97–110.

[55] See Adler and Barnett, 'Security Communities'; Lebow, 'The Long Peace, the End of the Cold War, and the Failure of Realism'; and Kim Edward Spezio, *Beyond Containment: Reconstructing European Security* (Boulder, Colo.: Lynne Rienner, 1995).

[56] See Adler and Barnett, 'Security Communities', especially pp. 54–6.

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award each other an implied or expressed 'good faith and credit' clause.[57] From social identity theory, community members are also more likely to tolerate non-compliance by liberal states than by others.[58] While states may seek some opportunistic relative gain at times, members of the community will not usually exploit friends despite the absence of specific sanctions or metanorms to deter or punish such behaviours.[59]

Taken together, we expect to find evidence of four behaviours (see Table 3). Policy makers should express an increased sense of community commitment to export controls. The policies of COCOM members should reflect an increased respect for the export control decisions of other states. COCOM controls should shift their aim away from states that move closer in character to the values of the LC and more towards the most illiberal states. Finally, COCOM members should decrease restrictions on exports to other members of the liberal community.

ASSESSING WHY CO-OPERATION INCREASED

The evidence indicates that co-operation among COCOM members increased from 1985 to 1989, then increased even more during 1990–94. In the following discussion we try to assess the internally derived elements of each perspective that suggest different expectations about the behaviour of COCOM members from 1990 to 1994. We limit the discussion to evidence from those years because the associated increase in co-operation is the most counter-intuitive.

Realism and Neorealism

We find mixed support for the propositions derived from the realist and neorealist perspectives (see Table 3). Realists and neorealists anticipated the termination of COCOM shortly after 1989. The norms, rules and procedures of the institution still reflected the Western response to the outdated calculations about the distribution of military power and military threats. Realists also anticipated that former enemies, such as Poland, would become willing friends. As a realist might expect, COCOM members also attempted to redirect their co-operative efforts towards a new type of objective, non-proliferation, and new target nations, the pariah states, which together threatened the security of COCOM nations.

This approach proves less compelling, however, in other ways. Above all, while some COCOM members may have estimated some of the costs and benefits from co-operation, interviews that we conducted with officials confirmed that coldly calculated behaviour did not characterize the spirit of

[57] Wendt, 'Anarchy is What States Make of It', pp. 391–425.

[58] Glenn Chafetz, 'The Political Psychology of the Nuclear Nonproliferation Regime', *Journal of Politics*, 57 (1995), 743–75.

[59] Wendt, 'Anarchy is What States Make of It'.

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COCOM deliberations.[60] Moreover, members were even less likely to link their degree of co-operation with the relative distribution of net benefits. True, the protection generated by these measures is non-excludable for all members. Nevertheless, the distribution of benefits was never equal, as some members of COCOM or of the post-COCOM arrangement face more direct threats than others. Does Germany or France benefit more than the United States (especially concerning a military threat) by limiting the transfer of dual-use items to Libya, and if so, by how much more? With the concentration of intelligence-gathering resources in the hands of a few states, most COCOM and Wassenaar Arrangement members depend on the United States to make the threat assessment associated with specific items (i.e., the military benefits from controlling an item). In a practical sense, few states had the capability or desire to make independent cost–benefit assessments of substantive changes in the lists.

Nor can realists explain the pattern of co-operation that develops throughout the period. While some enemies became friends, as realists anticipate, why have not some friends become enemies? Despite all the talk of 'trade wars' and a new role for Japan in Asia, for example, the military security commitments (and the economic ties) between Japan and the United States lay at the foundation of Japanese and US regional security policy.[61] If security depends on balancing the capabilities of other great powers, then why do all the COCOM states remain on the same side of the balance?

Finally, neither COCOM nor Wassenaar Arrangement rules and procedures grant additional privileges, such as less stringent licensing or enforcement requirements, to the less powerful members to induce them to co-operate, as realists expect. The United States, Norway, Germany and other states offered and provided special assistance to former communist states and others to induce their co-operation. No evidence, however, suggests that the United States or other powerful members of COCOM made large portions of financial, military or other assistance as a side-payment (i.e., outside COCOM) to less powerful members, such as Turkey, contingent on their compliance to COCOM rules and procedures from 1985 to 1994.

Rational Institutionalism

We find little clear support for propositions associated with a rational institutionalist perspective (see Table 3). The heightened uncertainty about new alignments of global power during these years surely augmented the value of COCOM as a forum in which to co-ordinate an orderly relaxation of controls.

[60] Interviews conducted by the authors with officials from the US Departments of Defense and State, the British Ministry of Defence, the Japanese Ministries of International Trade and Industry (MITI) and Foreign Affairs, and the Australian Ministries of Defense and Foreign Affairs.

[61] Barbara Wanner, 'Clinton Administration Refocuses Asian Pacific Security Strategy', *JEI Report*, 11A, 24 March 1995, pp. 8–11.

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COCOM gave its members some insurance against communist or authoritarian retrenchment. COCOM also became a model for co-operation in addressing the threat posed by the proliferation of weapons of mass destruction and advanced conventional weapons.

As expected, many officials directly involved in COCOM matters expressed views consistent with the notion that national preferences were simply in greater harmony regarding the general idea of liberalizing COCOM controls after 1989. They disagreed vigorously, however, on how to liberalize controls.[62] The bulk of the evidence indicates that substantial adjustments in policy initiatives were made in virtually every arena relevant to export controls, including COCOM procedures, targets and lists (much less for the development of a new institution) after 1989. Perhaps the best of many illustrations concerns the Core List exercise. Developing the Core List required three full-scale rounds and eight months of often tense negotiations before agreement was reached in June 1991. Allegedly, the US and British positions on controls on telecommunications items were close, but nearly incompatible with the more liberal positions of the other members.[63] Only a grudging compromise with Germany, which allowed the transfer of indigenous East German technology to the Soviet Union without COCOM approval, produced an agreement.[64]

After 1989, COCOM members tried to reduce the transaction costs of co-operation; they continued to liberalize restrictions against former communist countries; they worked to create a licence-free zone among COCOM members; and they continued variants of the Third Country Initiative, which promised easier access to COCOM products for enterprises in states that complied with COCOM licensing standards, while enlarging the potential market for COCOM enterprises. Significantly, as rational institutionalists might expect, this last effort was least successful with countries whose industries could not really benefit from access to the highly sophisticated forms of Western technology found on the COCOM list of dual-use items. In addition, interviews with officials reveal that the COCOM member that continued to face the most direct threats from communist or former communist states, Japan, was perhaps the most reluctant to embrace extensive relaxation of export controls.[65]

As rational institutionalists anticipated, increased co-operation was both characterized by and associated with greater efforts to monitor compliance, improve enforcement and reduce uncertainty about cheating. By 1992, all

[62] Officials who expressed these views were situated primarily in the US Departments of State, Defense, Commerce, and Energy, as well as in the Japanese Ministry of Foreign Affairs.

[63] 'COCOM Allies Struggle with Core List', *Export Control News*, 4, No. 11 (16 November 1990), p. 8.

[64] 'German Fiber Optics Sale Enrages US Industry, Prompts COCOM Telecom Review', *Export Control News*, 5, No. 12 (18 December 1991), pp. 2–3.

[65] Officials in the US Department of State, and in the Japanese Ministry of International Trade and Industry (MITI) and Ministry of Foreign Affairs, expressed these views. For a discussion of recent Japanese defence policy, see Barbara Wanner, 'Defence White Paper Emphasizes North Korean Security Threat', *JEI Report*, 26B, 14 July 1995, pp. 3–4.

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COCOM members met the Common Standard for Effective Protection, which outlined national licensing and enforcement standards, including legal and administrative requirements. Canada, France, Germany, Japan, Norway and the United Kingdom, for example, increased their civil or criminal penalties for violations of export control laws. In comparison, only four years earlier the US Department of Commerce could not make 'a determination that any country has an export control system fully in accordance with an effective level of protection'.[66] After 1989, the United States, the United Kingdom and Germany also developed a 'catch-all' provision in their regulations. This provision punished individuals, companies and specific government entities if they knowingly assisted in the transfer of sensitive items to proscribed end-users or for prohibited end-uses. Finally, prospective participants in the Wassenaar Arrangement also agreed to the 'no undercut' rule to deter exploitation by competitors when sharing information on denial notices.

Despite some increase in sharing information on licensing procedures, however, the monitoring activities of government or private industry behaviour remained quite low. For fiscal year 1993, the Bureau of Export Administration (BXA) in the US Department of Commerce, for example, processed 2,603 licence applications to COCOM member countries and a further 18,817 to 'Other Free World' countries out of 26,082 total applications.[67] At the same time, BXA initiated only 256 post-shipment checks for the same period, of which 204 were for non-COCOM members in Eastern Europe, the Middle East and the Pacific Rim.[68] BXA also estimated that it would initiate only 110 in the 1994 fiscal year.[69]

COCOM members did not appear to sanction or explicitly threaten to sanction another member government anytime after 1989 for violations of COCOM norms, rules or spirit, following the pattern from before 1989.[70] In 1991, for example, Germany permitted the sale of COCOM-controlled fibre-optic cable produced by an East German enterprise, Zeiss, for delivery to the Soviet Union. This infuriated other COCOM members.[71] Instead of attempting to punish Germany, however, COCOM members reviewed controls on fibre-optic

[66] US Department of Commerce, Bureau of Export Administration, *Export Administration Annual Report Fiscal Year 1989* (Washington, DC: US Government Printing Office, 1990), p. 27.

[67] US House Committee on Appropriations, 'Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations for 1995', Part 1B, 103rd Congress, 2nd session, Washington, DC: Committee on Appropriations, p. 1229.

[68] US Department of Commerce, Bureau of Export Administration, *Export Administration Annual Report 1994 and the 1995 Report on Foreign Policy Export Controls* (Washington, DC: US Government Printing Office, 1995), p. 38.

[69] *Export Administration Annual Report 1994 and the 1995 Report on Foreign Policy Export Controls*, p. 1252.

[70] Even in the infamous Toshiba case in the 1980s, Reagan administration officials opposed the use of punitive sanctions as inimitable to promoting co-operation to prevent future violations. See 'COCOM Ministerial Meeting Planned', *Export Control News*, 1, No. 7 (30 November 1987), pp. 12–16.

[71] 'German Fiber Optics Sale Enrages US Industry, Prompts COCOM Telecom Review', pp. 2–3.

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systems with the intent to liberalize such controls for all its members. In 1991, COCOM members considered creating a two-tier system, with fewer restrictions on exports to COCOM countries with the most stringent export control systems, but abandoned the effort.[72]

As mentioned in the discussion of realism, it is also very hard to prove that COCOM members often compared the benefits of increased co-operation with the specific costs, a prerequisite for knowing that the benefits of co-operation were increasing. Though the British government allegedly tracked the direct benefits of liberalization of controls for specific firms, interview data suggest that delegations did not specifically calculate the various costs and benefits derived from COCOM activities, nor maintain any cumulative record of such information. In any case, making such calculations is difficult in the extreme.[73] Again, the concentration of intelligence gathering resources in the hands of a few states limits the opportunity for cost–benefit analysis. Other factors, such as incompatibility of the item classification system with standard tariff nomenclature, the small percentage of licences that had to be reported to COCOM, and that the value of licences does not equal the value of actual shipments, also make it uncertain whether officials could have compared the absolute or relative economic costs and benefits reliably even if they wished to do so, much less compare the economic costs and benefits to specific military costs and benefits.

Finally, the processes of liberalization and of the creation of the Wassenaar Arrangement does not seem to follow rationalist expectations. While relaxing the standards against former members of the WTO seems reasonable, a decreasing 'shadow of the future' suggests COCOM members might just as well have abandoned co-operation rather than have expended resources to co-ordinate the deregulation of their export controls. As the Wassenaar Arrangement has many more members than COCOM and still operates by consensus (though without a veto provision on licensing), this may also increase the '*n*-player' problem, by increasing the chances for deadlock, broadening the opportunity for cheating and adding to the costs of monitoring and enforcing compliance (see Table 2).

[72] 'COCOM Nears Final Agreement on Core List', *Export Control News*, 5, No. 4 (29 April 1991), pp. 4–5.

[73] For examples of a few attempts to estimate costs, see William F. Finan, 'Appendix D: Estimate of Direct Economic Costs Associated with US National Security Controls', in the Panel on the Impact of National Security Controls on International Technology Transfer, National Academy of Sciences, *Balancing the National Interest*, pp. 254–77; and J. David Richardson, *Sizing Up US Export Disincentives* (Washington, DC: Institute for International Economics, 1993). For an assessment of security benefits, see Douglas E. McDaniel, *United States Technology Export Control: An Assessment* (Westport, Conn: Praeger, 1993), pp. 97–134, or Roger J. Carrick, *East–West Technology Transfer in Perspective* (Berkeley, Calif.: Institute of International Relations, 1978).

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Domestic Pressures

We find mixed support for the expectations about how domestic pressure would produce an increase in co-operation among COCOM members after 1989 (see Table 3). Even before the end of 1989, many influential industry associations such as the European Business Round Table and the US Industry Coalition for Technology Transfer favoured a faster pace of liberalization of COCOM controls.[74] Though difficult to calculate, this pressure probably increased in Europe, Japan and the United States after 1989. The Security Export Control Committee in Japan, for example, called for additional liberalization of COCOM, though Japan became a leader in calling for export controls to combat non-proliferation.[75]

Reforms in COCOM and in national export control systems suggest that governments were responsive to this pressure to liberalize. In the United States, for example, the dramatic liberalization of computer export controls in 1993 (and again in 1995) seemed to be a response to industry pressure from key electoral states, particularly California.[76] At the same time, members of the European Community conducted a full-scale project to harmonize and liberalize their export control schemes with the development of the European Union. In at least one instance, Britain reportedly negotiated a change in controls on computer exports by two million theoretical operations per second to meet the needs of a British firm.[77] For telecommunications items, GEC (Britain), Philips (Netherlands), Thompson (France) and Seimens (Germany) reportedly had sufficient political influence to make their preferences on telecommunications liberalization a priority for their respective governments.[78] In the case of the Netherlands, this merely reflects their tradition of including a representative from Philips as a member of their COCOM delegation.

Not all the domestic pressure supported relaxation in controls. Scandals associated with revelations about European participation in Iraqi arms programmes pushed many states, particularly Germany, towards stricter export control systems. In the United States, members of Congress followed some idiosyncratic interests, from opposition to the Beijing regime to a lingering suspicion of Russia to a real interest in non-proliferation, to prevent passage of a new, more liberal Export Administration Act in the first years of the Clinton

[74] European Round Table of Industrialists, *Export Regulations: European Industry and COCOM* (Brussels: European Round Table of Industrialists, 1990); and 'Industry Groups Urge Repeal of "No-Exceptions" Policy', *Export Control News*, 3, No. 4 (30 April 1989), pp. 6–8.

[75] Security Export Control Committee, Industrial Structure Council, 'The Future of Security Export Controls', White Paper for the Ministry of International Trade and Industry (Tokyo: MITI, 1993).

[76] 'Administration Announces Mammoth Control Reform', *Export Control News*, 7, No. 9 (30 September 1993), pp. 2–6.

[77] 'COCOM Prepares for Busy September', *Export Control News*, 6, No. 8 (27 August 1992), p. 3.

[78] 'Bush Administration Announces COCOM Position', *Export Control News*, 4, No. 3 (31 May 1990), pp. 2–4.

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administration. In addition, support for catch-all controls in the United States, Germany, the United Kingdom and Japan clearly went against immediate commercial interests. In a study by the National Association of Manufacturers, for example, many US firms considered the new proliferation controls, including the 'catch-all' rule, as more onerous than the old system.[79] While often accused of having an export control system designed to respond to commercial interests, Japan continued to increase its commitment of bureaucratic resources to strengthen their export controls, with the initiatives coming from the Ministry of International Trade and Industry (MITI), not the commercial sector. Some Japanese business officials feel that the formation of Japanese catch-all and other export control regulations lack sufficient transparency and opportunities for meaningful participation by the private sector.[80]

In other ways, governments often went against commercial interests. The United States, for example, continued to accept a range of national discretion in licensing by other COCOM members, despite vigorous opposition from industry.[81] Moreover, the provision for even more restrictions on arms exports in the Wassenaar Arrangement also seems to counter the interests of defence firms when those firms may be more inclined to turn to the export market to survive declining defence budgets at home.

The continuation and even extension of export controls in spite of industry opposition does not by itself display flaws in the domestic pressure model. As noted in our earlier discussion of this perspective, the executive is often the dominant actor in initiating policy, though legislatures and other domestic constituencies will mitigate the policy outcome through the distribution of their support and opposition to such initiatives. Trying to explain the fact that a state or COCOM does not liberalize controls in a certain industry sector or towards certain targets by saying that some state interest must be in opposition, does not give much enlightenment.

Liberal Community Identity

We find support for all four of the hypothesized behaviours (see Table 3). From interview data, officials both from COCOM member states and countries striving to co-operate with COCOM viewed adherence to non-proliferation export control arrangements as an important part of being in a community of liberal states.[82] At the 1991 Munich summit, G-7 leaders reiterated this

[79] National Association of Manufacturers, 'NAM Export Control Survey', mimeo, July 1992.

[80] Discussions with Japanese business officials, Tokyo, July 1994 and September 1995.

[81] 'COCOM Continues Unfinished Work on Telecommunications Controls', *Export Control News*, 6, No. 4 (29 April 1992), pp. 7–8.

[82] Officials from the US Departments of Defense and State, Australian Ministries of Foreign Affairs and Defense, and Japanese MITI and Ministry of Foreign Affairs have expressed this view. In addition, officials from Belarus, Bulgaria, the Czech Republic, Hong Kong, Poland, Romania, Russia, Singapore and Ukraine have made similar statements about the importance of export controls and a liberal community.

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perspective when they pledged to 'intensify our co-operation in the area of export controls of sensitive items'.[83] This included 'the informal exchange of information to improve and harmonize these export controls' to meet the opportunity and the challenge of shaping the post-Cold War order.[84] While experts disagreed over the effectiveness of COCOM in controlling sensitive technology, policy makers often asserted that COCOM was an effective arrangement that was more successful in its mission than not.[85] Their experience with co-operation on export controls, though often controversial, appeared to help the West maintain advantages in military technology throughout the Cold War, a conflict in which the West eventually prevailed, largely without bloodshed.

COCOM members took procedural steps to indicate that they, particularly the United States, increasingly respected the licensing decisions made by others. Opposed by some military security analysts, the movement towards a licence-free zone among COCOM members and granting licence benefits to co-operating non-COCOM states is the best indication of this shift. With a licence-free zone, it means that each state must trust other parties to implement effectively the common standards of effective enforcement and effective protection to prevent diversion and trans-shipment of sensitive items. The use of national discretion procedures, strongly opposed by US industry, recognizes the right of various COCOM members to diverge in the degree of restrictions they impose on specific items, implicitly relying on the good faith of other states to maintain sufficiently restrictive controls. Despite considerable industry pressure to the contrary during the Core List exercise, the US government agreed to a system that permitted these differences.[86] Most important, the interim co-operative relationship and the Wassenaar Arrangement rely exclusively on

[83] 'Full text of the political declaration issued at the Munich Summit', *Japan Times*, 8 July 1992, p. 19.

[84] 'Full text of the political declaration'.

[85] For arguments that COCOM was ineffective, see Gunnar Adler-Karlsson, *Western Economic Warfare 1947–1967: A Case Study in Foreign Economic Policy* (Stockholm: Almqvist and Wiksell, 1968); or Anthony Sutton, *Western Technology and Soviet Economic Development 1945–1965*, Vol. 3 (Stanford: Hoover Institution, 1973). For arguments that COCOM was effective, see Roger J. Carrick, *East–West Technology Transfer in Perspective* (Berkeley: Institute for International Studies, 1978); or more recently Stephen Bryen, 'After COCOM, a danger of more Iraqs', *International Herald Tribune*, 5 March 1994. In addition to interviews by the authors of officials in the US Departments of Energy, Defense, and State, this is clear from the mission reports in *Balancing the National Interest*, pp. 183–220, and National Academy of Sciences, *Finding Common Ground: US Export Controls in a Changed Global Environment* (Washington, DC: National Academy Press, 1991), pp. 266–303. For more recent statements, see Frans Engering, the senior Dutch official who chaired the discussions on the end of COCOM, 'Export control goes national in post-Cold War era', *Reuters Limited* (11 April 1994); or 'Background briefing on export control by senior administration official', *US Newswire, Inc.*, 29 September 1994, both in Lexis.

[86] 'Core List Round Two Negotiations', *Export Control News*, 4, No. 12 (12 December 1990), p. 11.

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national discretion in all licensing decisions, such that none are subject to multilateral approval.

No member of COCOM ever left the institution, although members exhibited very different preferences regarding targets, items to control and institutional procedures. Even after the termination of COCOM, representatives continued to meet at intervals in working groups or in larger sessions rather than exit the arrangement. Reportedly, when COCOM members abandoned a proposal for a two-tier licensing system that would have penalized members with weak export control systems, they were responding to threats by the alleged 'laggards' (i.e., Greece, Turkey and Portugal) to exit COCOM if they adopted the proposal.[87]

As expected, the Wassenaar Arrangement targets some of the most illiberal states, such as Iran, Iraq, North Korea and Libya. Wassenaar does not target states that had greater capabilities to undermine liberal interests, but were undergoing considerable economic and some political reform, such as the People's Republic of China, Brazil or Argentina. Perhaps the best indicator is that India, a democracy that is also a powerful and implacable opponent of some basic tenets of non-proliferation (and, until recently, a foe of capitalism), is not a target of the new Wassenaar Arrangement. Finally, most efforts to relax COCOM controls and expand co-operation were directed towards other liberal states. This includes the liberal European neutrals as well as the former members of the WTO that had made the most strides in liberal political and economic reform. In Asia, efforts to enlist Korea and Taiwan also proved more fruitful after those countries attained significant political liberalization.

CONCLUSION

Without question, a new era emerged for COCOM after 1989. COCOM members reached consensus on many issues, including massive changes in the number of controlled items, the nature of the items subject to controls, the proscribed destinations and institutional procedures. Though membership remained relatively stable, many additional states began participating with COCOM members in more formal multilateral negotiations on export control issues. Generally, the members of the now defunct COCOM structure are evolving their national and multilateral practices towards a system meant to make access to strategic items freer for non-military end-uses. In the post-Cold War world, members of the Wassenaar Arrangement prefer to facilitate access to technology for post-communist states, rather than co-ordinate its denial, in their desire to promote international trade and encourage democracy.

Some may not find this surprising. Conventional interpretations of a variety of theoretical perspectives, and the voices of a number of scholars and policy makers, however, cast the increase in co-operation among COCOM members

[87] 'COCOM Nears Final Agreement', p. 5.

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in a puzzling light. Though we found that each of the four theoretical perspectives examined here could explain this phenomenon, each offered contrasting views on what specific behaviours should be associated with an increase in co-operation.

We find at least some evidence to support each of our four explanations (as outlined in Table 3). Overall, however, the behaviour of COCOM members in the post-1989 era appears to reflect the tightening bonds of a liberal security community better than the other explanations. As an exploratory case study, however, this research cannot fully test any explanation. It does suggest the importance of further developing hypotheses related to the existence and consequences of an emerging liberal security community for understanding international co-operation.

One advantage of the LC approach is that it may subsume many propositions from the realist, rational institutionalist and domestic pressure explanations. Even Edward H. Carr and Hans Morgenthau did not rule out world federations or other superstructures of government as impossible. They simply contended that a more common morality in the international community would be a necessary antecedent.[88] COCOM members, for example, might be most concerned with relative security gains in their interaction with illiberal states and with absolute security gains in interactions with liberal states. By definition, expanding the membership of a LC also depends on domestic interests that favour democracy and liberal trade policies, and the links those domestic forces have with influential groups in other countries. In particular, political scandals regarding cases of technology transfer in France, Germany, Great Britain, Japan, Norway and the United States, among others, have made officials of the various policy communities wary of neglecting controls or falling short of standards set by the liberal community, while policy makers in illiberal states need not be as attuned to these forces.

Why would COCOM members continue to see themselves as part of a liberal community after the end of Soviet communism, as the evidence suggests? Solid evidence supports the contention that governments of democratic societies are much more likely to settle their mutual disputes peacefully than similar disputes between other forms of states would be settled, probably because of norms against the use of force.[89] The members of COCOM have strong democratic traditions. It seems logical that leaders in those states might perceive that the most likely security threats will come from states or other international actors outside COCOM. If so, their key multilateral tasks are to preserve and extend the liberal security community in which COCOM was an influential structural feature. Failure to preserve the extended community, not just the nation, opens political leaders to charges of negligence not only by the export control policy

[88] Carr, *The Twenty Years' Crisis*, p. 239; Morgenthau, *Politics Among Nations*, pp. 508–28.

[89] See, for example, William J. Dixon, 'Democracy and the Peaceful Settlement of International Conflict', *American Political Science Review*, 88 (1994), 14–32; or Bruce Russett, *Grasping the Democratic Peace* (Princeton, NJ: Princeton University Press, 1993).

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communities, but the broader society. The passing of COCOM, therefore, marks not a decline in co-operation, but a means of allowing COCOM members to deepen their co-operation within the community and to extend the community to other liberal states.

This study certainly suggests that we should consider the expectations regarding the emergence of a liberal community in other institutional contexts, including largely political-military settings, such as NATO. It also might apply to co-operation in liberal economic institutions, such as the International Monetary Fund (IMF). Another interesting effort might examine co-operation among members of the Association of Southeast Asian Nations (ASEAN) or among non-liberal states, such as the WTO or the Axis Powers.

Despite the end of Soviet communism, the evidence suggests that some Cold War institutional arrangements will persist, even if under a new name, and that co-operation on export controls will increase. COCOM played an important role in facilitating change and harmonization in technology control strategy. Other export control arrangements have come to depend on COCOM rules, particularly its lists. To this extent, policy makers are adopting COCOM-like practices to control shipments of goods and technologies relevant to the proliferation concerns of liberal states. COCOM is dead, long live COCOM.

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