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The WTO and the Cartagena Protocol: International Policy Coordination or Conflict?

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The Issue

International policy coordination is a challenging exercise requiring policy rapprochement among sovereign nations that often have very different political economy situations. Successful efforts may even result in the creation of multilateral paradigms such as trade agreements or multilateral environmental agreements (MEAs). Typically, there is overlap between these independent paradigms; sometimes in the nexus there is policy coordination and other times there is conflict. An understanding of the factors that account for coordination and conflict is crucial in ensuring that any benefits from policy coordination that may be achieved in one paradigm are not eroded through conflicts with another paradigm. This article presents a case study of the implications of overlapping multilateral paradigms – the World Trade Organization and an MEA known as the Cartagena Protocol on Biosafety – for international market access of biotechnology-based agri-food products.

Implications and Conclusions

This case study of the WTO–Cartagena Protocol relationship provides two general insights into *international policy coordination* between trade agreements and MEAs. First, they are likely to be in concert when (1) the MEA has a narrow scope and (2) there exists a transatlantic consensus on the systemic regulatory principles required to deal with the particular issue. Second, inversely, they are likely to be in conflict when the MEA has a broad scope and when there exists transatlantic regulatory regionalism – precisely the characteristics present in the WTO–Cartagena Protocol relationship. This international policy conflict creates fragmented international markets, decreasing the economies of scale; producers of GMOs, however, depend on economies of scale to recoup the considerable research and development costs they incur.

Introduction

In a broad sense, *international policy coordination* has the objective of solving policy (mis)alignment issues between sovereign nations through bilateral, plurilateral or multilateral negotiations. For example, monetary policy coordination represents an attempt to control the international spillover effects that foreign policies can have on domestic inflation and employment (Persson and Tabellini, 2000). International trade policy coordination represents an attempt to solve multinational market failures that prevent the efficient allocation of resources; such failures arise when nations do not engage in economic activities consistent with their comparative advantage (Gaisford and Kerr, 2001). Similarly, international environmental policy coordination represents an attempt to solve problems of environmental degradation that arise when nations acting in their own best (economic) interest fail to act in the best interest of global biodiversity (Helm, 2000; Killinger, 2000).

Despite the sensibleness of coordinating across policy domains to achieve global gains, international policy coordination is rarely an easy undertaking. For instance, multilateral efforts to liberalize international trade, such as the Uruguay Round and the current Doha "Development" Agenda, often take much longer than initially expected and often involve several significant crises that threaten the entire round. Even at a regional or plurilateral level, policy coordination is difficult, as the European Union's efforts to establish the Single European Market demonstrate. The challenge for international policy coordination is that the objective of maximizing global gains is sometimes not consistent with that of maximizing domestic gains. A national government, elected by domestic – not international – constituents, may simply lack the political will to engage in activities that increase global welfare at the expense of domestic welfare. And if one nation faces this dilemma, others do as well, creating a market failure of collective action (Olson, 1965).

Successful multilateral efforts in international policy coordination may result in the creation of multilateral paradigms. For example, the creation of the World Trade

Organization in 1995 from the Uruguay Round of GATT negotiations represents the international trade paradigm codifying the rights and obligations of nation-states that wish to be WTO members. Similarly, the creation of the Convention on Biological Diversity (CBD) from the1992 Earth Summit represents the international biodiversity paradigm codifying the commitments to the protection of biodiversity made by the CBD's ratifying nations.

While there is a significant body of literature on how these multilateral paradigms emerge (Gilpin, 2001), there is a limited amount of literature on what happens when these multilateral paradigms overlap (Isaac, Phillipson and Kerr, 2002). In this article, the international policy coordination problem arising from overlapping multilateral paradigms is examined through a case study of the relationship between the WTO and a multilateral environmental agreement known as the Cartagena Protocol on Biosafety to the Convention on Biological Diversity (Cartagena Protocol) with respect to international trade in products of modern biotechnology. An institutional analysis methodology[1] is adopted to assess the degree of concert or conflict between these two multilateral paradigms in order to understand the ramifications of the overlap for the Canadian agri-food sector.

This article is organized as follows. In the next section, the context of the trade-environment relationship will be presented and, in the section that follows, the two overlapping multilateral paradigms will be outlined. In the final section, the impact of the overlapping multilateral paradigms upon the international trade of products of modern biotechnology will be discussed.

International Trade and Environmental Protection

The relationship between international trade agreements and measures to protect the environment has received enough attention that in Articles 31 to 33 of the Doha Agenda's Ministerial Declaration there are calls for greater clarification on this issue. Despite this attention, however, the actual record has not been that antagonistic at all. In 2001, the WTO's Committee on Trade and the Environment recognized 238 MEAs, 32 of which were deemed to contain trade-distorting provisions (WTO CTE, 2001). Three particularly trade-distorting MEAs include: the Convention on the International Trade in Endangered Species 1973 (CITES); the Montreal Protocol on Substances that Deplete the Ozone Layer 1987 (Montreal Protocol); and the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Disposal 1989 (Basel Convention). Despite their trade-distorting provisions, to date no MEAs have been directly challenged under the auspices of the WTO. Instead, they have peacefully co-existed.

The following question then emerges: What are the factors that explain why trade-environment relationships are in concert and, inversely, could be in conflict? Applying an institutional analysis methodology across the 32 most trade-distorting MEAs reveals that two factors are common to all of them. First, when the environmental issue tackled by the

MEA is narrow, there seems to be an increased likelihood that nations are willing to abide by the environmental protection measures even if they may, in fact, hinder international trade, because the measures do not spill beyond this narrow issue. Trade in endangered species, ozone-depleting substances and hazardous wastes all fit this criterion of being narrow environmental issues. It appears that while the first factor seems to be a necessary condition it is not a sufficient condition for a harmonious trade-environment relationship.

The second important factor is the presence of a transatlantic agreement on the issue. That is, if the United States and the EU can agree that the environmental measure deserves attention and that the regulatory response outlined in the MEA is acceptable (that is, there is consistency between the U.S. and the EU regulatory approaches), the likelihood of conflict with the international trading regime appears to decrease. Again, protection of endangered species, the ozone layer and domestic biodiversity from hazardous wastes are policy goals shared with virtually equal fervour on both sides of the Atlantic.

The WTO and the Cartagena Protocol

Given the above discussion, two overlapping multilateral paradigms – the WTO and the Cartagena Protocol – can now be assessed again using the institutional analysis methodology, beginning with a discussion of their respective mandates which, consequently, manifest themselves into path-dependent regulatory trajectories. The research question is simple: Are these multilateral paradigms likely to be in concert or conflict?

The World Trade Organization

The WTO has a narrow mandate of trade liberalization for goods and services based on the principle of non-discrimination (PND) (Isaac, 2002). There are basically three concepts embedded in the PND. The first is the concept of *like* products whereby trade agreements do not focus on how a good (or service) is processed or produced, but rather on the end-use attributes of the good (or service). A cotton shirt is *like* a cotton shirt regardless of whether the cotton was produced in an intensive or organic agricultural system. The second concept is that of *national treatment* whereby foreign goods or services must be treated the same in terms of market access rules as *like* domestic goods and services. The third concept is that of *most-favoured nation* whereby the favourable market access enjoyed by one particular foreign producer must be extended to all foreign producers of *like* products. Together, these three concepts combine within the PND to produce multilateral reciprocity. Moreover, they become the default principle whereby domestic measures are trade compliant if they pass the default test of non-discrimination. The benefit of this system is that it moves toward a rules-based system, allowing for international trade to be a commercial function and not a government-to-government function.

Yet, recognizing that the principle of non-discrimination cannot always apply, specific trade agreements, such as the Agreement on Sanitary and Phyto-Sanitary Standards (SPS Agreement), outline the instances where a country can legitimately violate the PND (Isaac and Kerr, 2003). For example, if Canada has a scientifically sound reason for banning a particular foreign product because of a risk to human, plant or animal health, that ban does not have to apply to all foreign and domestic producers of *like* products.[2] That is, any or all of the three concepts of non-discrimination – *like* products, *national treatment* and *most-favoured nation* – may be suspended by the importing country at its own discretion.

When the techniques and procedures of genetic modification produce crops with production-traits (that is, without any output traits that would make the product distinguishable from non-GM crops) they are considered to be *like* products under the international trading regime. Therefore, due to the absence of scientific justifications for banning GM crops, the WTO – consistent with the PND – does not explicitly focus on market access for GM crops as distinct from non-GM crops (Isaac and Kerr, 2003). In other words, the WTO supports a *product-based* approach to GM crops (Isaac, 2002).

The Cartagena Protocol on Biosafety to the Convention on Biological Diversity

Signed in January 2001 and entered into force on September 11, 2003 (after 50 signatory countries had ratified) is the Cartagena Protocol, an MEA with a mandate to protect environmental biodiversity from the transboundary movement (i.e., trade) of living products of modern biotechnology. Two significant differences between the Cartagena Protocol and the WTO may be identified. The first is that the Cartagena Protocol supports a *process-based* approach whereby it is the use of modern biotechnology – regardless of the impact upon the end *like* product – that triggers regulatory oversight.

The second significant difference is that while the WTO's underlying regulatory principle is the principle of non-discrimination, underlying the Cartagena Protocol is the principle of advance informed agreement (PAIA). Modelled initially on the Basel Convention (Isaac, 2002), the Cartagena Protocol essentially treats products of biotechnology as hazardous waste whereby the government of the importing country (party of import) must be notified by the government of the exporting country (party of export) of the intended transboundary movement of living products of biotechnology to allow the party of import to conduct its own risk analysis and determine the risk to domestic biodiversity prior to the shipment. Without a link to the international trading regime or to international scientific organizations, the Cartagena Protocol basically permits parties of import to set market access bans according to any factors which they deem fit. Therefore, while the WTO aims at removing governments from the act of deciding market access, the Cartagena Protocol elevates the role of government, making the transboundary movement of living modified organisms a government-to-government activity.

Combining the process-based approach with the principle of advance informed agreement results in a highly precautionary protocol that treats the products of modern biotechnology as hazardous wastes such that parties of import have sufficient room to make unilateral market access decisions while exporters and parties of export have virtually no recourse.

Transatlantic Differences

The incongruence between the WTO and the Cartagena Protocol's approach to the international regulation of biotechnology is reflected in the current transatlantic regulatory regionalism which prevents consensus on how to appropriately regulate products of modern biotechnology. On one hand, the United States (along with Canada) essentially favours a *product-based* approach triggered by scientific evidence of risk or hazard that is consistent with the WTO approach. On the other hand, the EU favours a *process-based* approach triggered by the precautionary principle that is consistent with the Cartagena Protocol. The differences in approach led to a request to the WTO (May 13, 2003) by the United States and Canada, along with Argentina and Egypt, for a consultation on the EU moratorium on market approval of GMOs, which had been in place since 1998. In late July the EU announced that it would end the moratorium as new regulations were put into place. The WTO request was not withdrawn, because the EU's moratorium was only a symptom – the real problem is the transatlantic regulatory differences, which the new EU regulations did not bridge (they maintained a process-based approach fundamentally at odds with the U.S. approach). It is most likely that the consultation will evolve into an acrimonious trade dispute pitting the North American against the EU approach. The consequences are significant because the implicit conflict will be between the WTO's approach to biotechnology regulations (as supported by the United States) and the Cartagena Protocol's approach to biotechnology regulations (as supported by the EU). That is, for the first time there will be conflict between the WTO and an MEA.

WTO, Cartagena Protocol and Transatlantic Differences

Given the differences outlined above, it is clear that the factors conducive to a harmonious trade-environment relationship are not present with respect to the two multilateral paradigms for regulating biotechnology products. Moreover, there appears to be very little likelihood of convergence because it would require either side to abandon their fundamental regulatory approaches. Given the significant commercial lead enjoyed in North America it is unlikely that the regulatory structure will revert to a precautionary, process-based approach that would treat biotechnology products as hazardous or toxic wastes. Inversely, given the politicization of the GMO issue, it is unlikely that the EU will undertake a dramatic withdrawal from the process-based system and allow for widespread market access of what are largely considered to be foreign technologies (Isaac, 2002).

Implications and Conclusions

Clearly, international policy coordination in the area of agricultural biotechnology is a major challenge given the presence of both multilateral (WTO v. Cartagena Protocol) and regional (United States/Canada v. EU) regulatory differences. Several problems for the agri-food sector arise.

First is the problem of forecasting which regulatory approach will prevail. On the one hand, it is entirely reasonable to argue that the current EU/Cartagena Protocol support is the result of a commercial lag (it is much easier to adopt a precautionary approach when the GM crops are foreign and not domestic products), but when domestic products are ready a more technologically progressive approach will emerge in the EU, which will then influence the Cartagena Protocol. On the other hand, it is also entirely reasonable to argue that the North American/WTO approach lacks sufficient social responsiveness and therefore must change in the face of consumer concerns about environmental sustainability and corporate control over the food supply. Therefore, given the remote likelihood of convergence and the two plausible arguments presented above, it is difficult to forecast which regulatory approach will prevail.

Second, in the meantime, fragmented international markets produce a decrease in the economies of scale required to recoup the considerable research and development costs incurred by producers of GMOs. Incongruent multilateral paradigms have the effect of institutionalizing agricultural trade barriers whereby WTO-incompliant measures may in fact be supported by the Cartagena Protocol. The result is incredibly unpredictable international markets for Canadian agri-food exports that contain (or may contain) GMOs – incisively illustrated by the current debates over the introduction of Monsanto's Round-Up-Ready wheat to the Canadian prairies.

Third is the more general problem of antagonism between agri-food trade and environmental protection efforts perhaps producing an entrenched conflict whereby MEAs are negotiated not as complementary agreements but rather as countervailing forces to trade liberalization agreements. This case study of the WTO–Cartagena Protocol relationship provides two general insights into international policy coordination between trade agreements and MEAs. They can be in concert when (1) the MEA has a narrow scope and (2) there exists a transatlantic consensus on the systemic regulatory principles required to deal with the particular issue of concern to the drafters of the MEA. On the other hand, they may be in conflict when the MEA has a broad scope and when there exists transatlantic regulatory regionalism – precisely the characteristics present in the WTO–Cartagena Protocol relationship.

References

Gaisford, J.D. and W.A. Kerr. 2001. Economic Analysis for International Trade Negotiations: The WTO and Agricultural Trade. Northhampton, MA: Edward Elgar Press.

Gilpin, R. 2001. Global Political Economy: Understanding the International Economic Order. Princeton, NJ: Princeton University Press.

Helm, C. 2000. Economic Theories of International Environmental Cooperation. Northhampton, MA: Edward Elgar Press.

Isaac, G.E. 2002. Agricultural Biotechnology and Transatlantic Trade: Regulatory Barriers to GM Crops. Oxon, UK: CABI Publishing.

Isaac, G.E. and W.A. Kerr. 2003. Genetically Modified Organisms and Trade Rules: Identifying Important Challenges for the WTO. *The World Economy* 26(1): 29-42.

Isaac, G.E., Phillipson, M. and W.A. Kerr. 2002. International Regulation of Products of Biotechnology. Estey Centre Research Paper Number 2. Saskatoon, Canada: Estey Centre for Law and Economics in International Trade.

Killinger, S. 2000. International Environmental Externalities and the Double Dividend. Northhampton, MA: Edward Elgar Press.

Olson, M. 1965. The Logic of Collective Action: Public Goods and the Theory of Groups. Cambridge, MA: Harvard University Press.

Persson, T. and G. Tabellini. 2000. Political Economics: Explaining Economic Policy. Cambridge, MA: MIT Press.

World Trade Organization, Committee on Trade and the Environment. 2001. Matrix of Multilateral Environmental Agreements. WTO Doc WT/CTE/W/160.Rev.1 (14 July 2001). Geneva: WTO.

Endnotes

[1] An institutional analysis methodology is appropriate for the comparative analysis of the similarities and differences among institutions and is a common empirical approach in International Political Economy literatures. Accordingly, comparators are identified typically consisting of, but not limited to (1) origins of the institution; (2) objectives/mandates/scope of the institution; (3) membership structure; (4) underlying regulatory principles and path-dependent regulatory trajectories; as well as (5) decisions and actions taken by the organization.

[2] Scientific justifications are determined to be sound not by the WTO but by one of the following three international scientific agencies to which the WTO defers: (1) Codex Alimentarius Commission (food safety and human health); (2) International Office of Epizootics (animal safety and health); and (3) International Plant Protection Convention (plant safety and health).