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Environmental Trade Barriers Under NAFTA: The MMT Fuel Additives Controversy

Julie A. Soloway*

I. INTRODUCTION

After much public debate and private negotiation, the Canadian federal government agreed in July 1998 to repeal its international and interprovincial trade ban on the fuel additive Methylcyclopentadienyl Manganese Tricarbonyl (MMT), citing a lack of scientific justification.¹ The Canadian government further agreed to pay U.S.-based Ethyl Corporation \$19.3 million (Canadian) for legal costs and lost profits.² Since Ethyl's Canadian business consisted of importing MMT into Canada, blending it with fuel, and then distributing that fuel-MMT blend nationally, the international and interprovincial trade ban effectively prevented Ethyl from conducting its business.³

* S.J.D. Candidate, Faculty of Law and Fellow, Centre for International Studies, University of Toronto.

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1. See Sylvia Ostry & Julie Soloway, *The MMT Case Ended Too Soon*, *GLOBE & MAIL* (Toronto), July 24, 1998, at A15. The legislation being repealed was the Manganese-Based Fuel Additives Act, Bill C-29, S.C. 1997, c.11 (in force June 24, 1997). *Id.*

2. See *id.*

3. Although it remained legal to manufacture and sell MMT within each individual province, the ban in trade is still potentially problematic. First, there may be a critical mass at which economies of scale in the production of MMT itself are achieved. This critical mass may be larger than the size of any individual provincial market, thereby making it uneconomical to set up a production facility for MMT. Second, even if the chemical itself could be easily produced, the process by which it is blended with gasoline may require additional economies of scale in excess of any individual Canadian provincial market for the product.

The ban on MMT was the culmination of an ongoing battle between two major sectors of the Canadian economy: auto manufacturers and petroleum producers. Auto manufacturers supported a ban on MMT, claiming that the additive reduced the efficacy of the new generation of pollution control equipment developed in response to increasingly stringent emissions standards. Petroleum producers, who blend MMT with gasoline in their refineries, opposed a ban, arguing that they would be forced to undertake significant capital expenditures to reconfigure their plants for alternative fuel additives. The controversy extends beyond just MMT: it raises the question of cost allocation between industries in developing new technologies to meet the ongoing demand for emissions reduction.

Advocates cited three reasons for the ban:⁴ first, to protect the health of Canadians; second, to harmonize North American fuel standards; and third, to protect workers and consumers from adverse economic effects due to increased engineering costs for auto companies. Bill C-29, a ban initiated by Environment Canada, seems to have been designed both for environmental and for economic protection. MMT was not banned as a toxic substance under environmental legislation such as the Canadian Environmental Protection Act.⁵ The legislature merely prohibited its movement across borders.

In response to Bill C-29, Ethyl began an intense litigation strategy under the dispute settlement provisions of NAFTA.⁶ Ethyl launched a successful challenge against the Canadian government under Chapter 11 of NAFTA's investor-state dispute settlement provisions. Chapter 11 allows an investor from a NAFTA country to sue the host government of a NAFTA country if that investor's rights have been breached. The Canadian government settled with Ethyl for \$19.3 million (Canadian) before the panel hearing was completed.⁷ Ethyl also attempted

4. See The Honourable Sergio Marchi, P.C., M.P., Minister of the Environment, Statement to the Senate Standing Committee on Energy, Environment and Natural Resources on Bill C-29: The Manganese Based Fuel Additives Act, at Parliament Hill, Ottawa (Feb. 20, 1997).

5. See Canadian Environmental Protection Act. 16 R.S.C. (1985) (4th Supp.) [hereinafter CEPA].

6. This is referred to as "complex institutional responsiveness" on the part of Ethyl Corp., that is, the willingness to engage NAFTA's dispute settlement mechanism to overcome trade-restricting environmental regulation. See ALAN RUGMAN ET AL., ENVIRONMENTAL REGULATION AND CORPORATE STRATEGY: A NAFTA PERSPECTIVE, ch. 1 (forthcoming 1999). See generally North American Free Trade Agreement, Dec. 17, 1992, Can.-Mex.-U.S., 32 I.L.M. 289.

7. Ostry & Soloway, *supra* note 1 at A15.

to instigate a challenge under NAFTA Chapter 20. Chapter 20 allows a government to sue another government for general breaches of NAFTA.⁸ The challenge did not proceed because the U.S. government did not pursue Ethyl's claim. In addition, Ethyl challenged the constitutionality of Bill C-29 in the Canadian domestic court system. Although a number of preliminary motions were heard, the legislature repealed Bill C-29 before the case went to trial.⁹ Finally, the Government of Alberta, host to Canada's oil refining industry, sued the federal government, alleging that Bill C-29 was inconsistent with Canada's new Agreement on Internal Trade (AIT). This challenge was successful, and the panel established that, under the AIT, Bill C-29 created an obstacle to trade that did not address a valid environmental objective.¹⁰

Amidst all the controversy among environmental groups, trade policy analysts, and other industry players, the issue of MMT has become a lightning rod for a number of key trade policy issues. First, as a trade-restricting environmental regulation, the ban raises issues about the legality under NAFTA of environmental regulations that protect the competitive interests of domestic industry rather than the environment. Second, as one of the first test cases under NAFTA's innovative investor-state dispute settlement mechanism, the controversy will have implications for the broader issue of global rules for foreign investor protection, specifically for the ongoing negotiation of the Multilateral Agreement on Investment (MAI). Third, the MMT dispute raises questions regarding the extent to which the precautionary principle can be used as a basis for enacting trade-restricting regulation. Finally, the broader issue of North American environmental regulatory fragmentation, apparent in the present controversy, poses challenges for the competitiveness of firms who operate regionally rather than nationally. Auto production requires significant economies of scale since automobiles are produced for a single regional, North American-wide marketplace. Standards for gasoline must be compatible in a single regional marketplace as well.

This Article examines the case of MMT and its implications for some of these key trade policy issues, particularly the capacity of the relevant NAFTA provisions to address protectionist

8. *Infra* notes 262-64 and accompanying text.

9. See Order Amending the Schedule to the Manganese-based Fuel Additives Act, SOR/98-393 (in force July 20, 1998).

10. *Infra* notes 190-205 and accompanying text.

environmental regulation. The following section presents a framework for the analysis of this issue. The third section offers a brief history and technical background of the MMT case in both Canada and the United States. The fourth section outlines and evaluates the positions of the different stakeholders involved on an issue-by-issue basis. The fifth section examines the domestic and international trade law questions raised in this dispute, and the sixth section reviews some of the more general trade policy issues. Finally, the Article concludes that Bill C-29 has more to do with the establishment of universal fuel standards and the protection of a fledgling industry than with environmental protection.

II. A FRAMEWORK FOR ANALYSIS

The issues raised by the MMT case are especially salient in the larger context of an integrated North American marketplace. As economies become more interdependent throughout the international trading system, environmental, health, and safety regulations can have a profound impact on international trade and investment.¹¹ There is a general perception that firms and their governments are attempting to fill the "protection gap" left by falling border barriers with the discriminatory application of environmental regulation.¹² These new non-tariff barriers have been documented by a growing interdisciplinary literature.¹³

11. See David Vogel, *Trouble for Us and Trouble for Them: Social Regulations as Trade Barriers*, in *COMPARATIVE DISADVANTAGES? SOCIAL REGULATIONS AND THE GLOBAL ECONOMY* (Pietro S. Nivola, ed., 1997). The issue in the present case is the flipside of the "race to the bottom" scenario where nations lower environmental regulation among jurisdictions to reduce the cost of production and attract foreign investment. The theoretical framework in the present case involves the use of higher standards to exclude competition from the market to protect domestic industry.

12. See Michael J. Trebilcock and Robert Howse, *Trade Liberalization and Regulatory Diversity: Reconciling Competitive Markets with Competitive Politics*, 6 *Eur. J.L. & Econ.* 5 (1998).

13. See RUGMAN ET AL., *supra* note 6, at ch. 1. The OECD has studied this issue as reported in OECD, *REGULATORY REFORM AND INTERNATIONAL MARKET OPENNESS* (1996). See also Alan M. Rugman and Julie A. Soloway, *Corporate Strategy and NAFTA — When Environmental Regulations are Barriers to Trade*, 3 *J. TRANSNAT'L MGMT. DEV.* 2, 3-4 (1998); see generally ALAN O. SYKES, *PRODUCT STANDARDS FOR INTERNATIONALLY INTEGRATED GOODS MARKETS* (1995); DAVID VOGEL, *TRADING UP: CONSUMER AND ENVIRONMENTAL REGULATION IN A GLOBAL ECONOMY* (1995); FAIR TRADE AND HARMONIZATION: PREREQUISITES FOR FREE TRADE?, VOL. 2: LEGAL ANALYSIS (Jagdish N. Bhagwati & Robert E. Hudec, eds., 1996).

What was the rationale behind the ban on MMT? Was Bill C-29 enacted to promote industrial rather than environmental interests? This question is illuminated by a "Baptist-Bootlegger" framework, a subset of the economic literature on regulation. The literature posits that industry regulation is a function of the demands of a coalition of two special-interest groups.¹⁴ The term Baptist-Bootlegger emanates from the prohibition era, when the sale of alcohol was illegal in the United States.¹⁵ Both Baptists and Bootleggers generally supported prohibition, although for very different reasons.¹⁶ Baptists supported prohibition for moral reasons, believing that it served the public interest, while Bootleggers sought to benefit from the high prices that could be charged for black-market alcohol.¹⁷ The first group has a public interest agenda; they seek to reduce the public's exposure to potentially harmful products.¹⁸ The second group, often an industry, has a wealth maximization agenda and benefits from a regulation that gives them some special advantage, for instance by raising their competitors' costs or creating barriers to entry.¹⁹ This group's case is not explicitly stated but is clothed in a public interest justification, thereby giving a public dimension to what "otherwise would be a strictly private venture."²⁰ Thus the existence of a Baptist-Bootlegger coalition can provide evidence of a protectionist intent on the part of legislators.

This framework does not consider in-depth the intentions of the government in forming a regulation. But the wishes of Baptists and Bootleggers do not passively flow through the legislature. The "state is not a unified actor," as it does not legislate

14. See Bruce Yandle, *Bootleggers and Baptists in the Market for Regulation*, in *THE POLITICAL ECONOMY OF GOVERNMENT REGULATION*, (Jason F. Shogren, ed., 1989). See generally VOGEL, *supra* note 13.

15. See VOGEL, *supra* note 13, at 20-22.

16. See *id.*

17. See *id.*

18. See *id.*

19. See *id.*

20. Yandle, *supra* note 14, at 34. There are important caveats to the Baptist-Bootlegger framework. From a global welfare perspective, the fact that the Baptists pursue a public interest agenda does not necessarily mean that the fulfillment of their agenda is welfare-maximizing. There are trade-offs that need to be made between, for example, whether a given piece of land should be a strip mall or a wildlife conservation park. If the piece of land in question is in a remote town in Northern Ontario where a large population and no stores exist, arguably developing the land into retail stores would increase the welfare of the local population more than a park. The converse may be true in a large urban centre such as Toronto, Ontario.

with a single purpose and intent.²¹ Public choice theory states that legislators respond to and trade off diverse values and interests.²² Each component of government seeks the fulfillment of different agendas which play out interactively in the decision-making process.²³ The intent of the government is difficult, if not impossible, to discern with any certainty. Yet the key to defining legislation as "protectionist" is finding legislative intent. The focus on intent as an indicia of protectionism has limited value, and other indicia may be better able to identify protectionist legislation. To some degree both NAFTA and GATT have adopted an intent test. There remains, however, a lack of a jurisprudential basis for making this judgment.²⁴

A second line of inquiry may provide more insight into the present question. A welfare analysis may produce a more objective indicator to help determine when states are acting legitimately and when they are disguising illegitimate protectionist ends. This would entail an inquiry into whether the global welfare losses from restricting trade grossly outweigh the regulatory benefits. This would require asking whether the regulation is an effective and efficient tool for reaching its stated goal. An environmental regulation that imposes a high economic burden to yield marginal environmental results will not increase net social welfare and may indicate that it serves the interests of a small rent-seeking group.²⁵ It also requires measuring the impact on global welfare that the restriction on trade may have, such as higher prices, restricted choices for consumers, or retaliatory measures undertaken by trading partners. The concept of applying a cost-benefit analysis to environmental regulation has received recent attention²⁶ and has been incorporated into inter-

21. William A. Kerr, *Removing Health, Sanitary and Technical Non-Tariff Barriers in NAFTA- A New Institutional Economics Paradigm*, 31 J. WORLD TRADE 57, 57-74 (1997).

22. See generally ANTHONY I. OGUS, *REGULATION: LEGAL FORM AND ECONOMIC THEORY* (1994); Charles K. Rowley, *Public Choice and the Economic Analysis of Law*, in *LAW AND ECONOMICS* (Nicholas Mercurio, ed., 1989).

23. See Kerr, *supra* note 21, at 61-62.

24. See NAFTA chs. 7 & 9 and the GATT art. XX, TBT, and SPS Agreements. See also Robert Howse, *Managing the Interface Between International Trade Law and the Regulatory State: What Lessons Should (and Should Not) Be Drawn From the Jurisprudence of the Dormant Commerce Clause* (Aug. 28-29, 1998) (unpublished manuscript, on file with the World Trade Forum). See generally *General Agreement on Tariffs and Trade*, Oct. 30, 1947, 61 Stat. A-11, T.I.A.S. 1700, 55 U.N.T.S. 194 [hereinafter GATT].

25. See Vogel, *supra* note 11.

26. See generally RISKS, COSTS AND LIVES SAVED: GETTING BETTER RESULTS FROM REGULATION (1996); STEPHEN BREYER, *BREAKING THE VICIOUS CIRCLE:*

national trade agreements through least-trade-restrictive means tests. The primary question here remains whether "reasonably available" less restrictive alternatives are able to attain the same level of regulatory benefit.²⁷ This raises difficult "measuring" questions about the value of a given regulation, especially when the underlying science is controversial. For the most part, however, NAFTA and GATT law and jurisprudence do not employ a welfare analysis.

III. HISTORY AND TECHNICAL BACKGROUND

MMT stands for *methylcyclopentadienyl manganese tricarbonyl*,²⁸ an organometallic compound used as an octane enhancer in gasoline.²⁹ Refiners add gasoline octane-enhancers such as MMT to increase fuel efficiency.³⁰ Ethyl Corporation of Richmond, Virginia developed MMT in 1953 and is currently its sole manufacturer in North America.³¹ MMT is marketed under the trade name HiTEC©3000.³² Ethyl has a blending plant in Corunna, Ontario which imports MMT and then sells it to Canadian refiners to add to their gasoline.³³ Environmental protection groups have raised three central claims surrounding the environmental dangers of MMT, each of which will be more fully explored in the following section. First, they contend that MMT poses a significant and serious health hazard through direct tailpipe emissions of toxic manganese oxides into the envi-

TOWARD EFFECTIVE RISK REGULATION (1993). See also David Orden and Eduardo Romano, *The Avocado Dispute and Other Technical Barriers to Agricultural Trade Under NAFTA* (paper presented at the conference on NAFTA and Agriculture: Is the Experiment Working? San Antonio, TX, November 1996) (on file with author).

27. See MICHAEL J. TREBILCOCK & ROBERT HOWSE, *Trade Policy and Domestic Health and Safety Standards*, in *THE REGULATION OF INTERNATIONAL TRADE* (2d ed.) (forthcoming 1998).

28. See STANDING SENATE COMM. ON ENERGY, THE ENVIRONMENT AND NATURAL RESOURCES, INTERIM REPORT CONCERNING BILL C-29, *AN ACT TO REGULATE INTER-PROVINCIAL TRADE IN AND IMPORTATION FOR COMMERCIAL PURPOSES OF CERTAIN MANGANESE-BASED SUBSTANCES* (Can.) (Mar. 4, 1997) (on file with *Minnesota Journal of Global Trade*) [hereinafter STANDING COMMITTEE].

29. See *id.*

30. Ethyl Corporation contends that MMT enables gasoline refiners to increase Research Octane Numbers up to approximately 1.5 to 2 units. According to the Canadian Petroleum Products Institute (CPPI), the amount of MMT in gasoline in 1993 ranged from 0 to 17.2 milligrams of manganese per litre. In 1996, the Canadian General Standards Board set a maximum allowable amount of 18 milligrams per litre. See *id.*

31. See *id.*

32. See *id.*

33. See *id.*

ronment.³⁴ Debate over the degree of health risk created by MMT has precipitated significant controversy about the level of manganese oxide in the atmosphere that is acceptable for human health.³⁵ Second, environmentalists claim that MMT increases overall auto emissions, particularly smog-forming particulates.³⁶ Third, MMT opponents allege that MMT causes auto emissions control systems to malfunction, resulting in increased emissions of hydrocarbons and carbon monoxide that have corresponding adverse health and environmental effects.³⁷

1. *MMT in Canada*

MMT has been widely used in Canadian gasoline since 1977, when it was introduced as a replacement for lead.³⁸ The first initiative to have MMT removed from gasoline came before the legislature in October 1990 in the form of a Private Member's Bill, which was never enacted into law.³⁹ The bill was introduced during a time of increasing environmental concerns about fuel additives and the availability of "cleaner substitutes."⁴⁰ Former Environment Minister Sheila Copps next attempted to ban MMT through the introduction of Bill C-94 in May 1995, which died on the order paper in February 1996.⁴¹ It was reintroduced in the House of Commons by then-Environment Minister Sergio Marchi as Bill C-29.⁴² A Standing Senate

34. *See id.*

35. *See id.*

36. *See id.*

37. *See id.*

38. *See* Environment Canada, *Government Reintroduces MMT Bill C-94* (electronic press release Apr. 19, 1996) <<http://www.eg.gc.ca/press/mmt-pe.htm>>.

39. A Private Member's bill is a bill sponsored by a Member of Parliament who is not part of the Cabinet. The term usually refers to public bills. They require unanimous approval of Parliament to move forward and thus rarely become enacted into law. *See* House of Commons Canada, *Glossary of Parliamentary Procedure* (visited Aug. 1998) <<http://www.parl.gc.ca/36/refmat/glossary/gloss-e.htm>> [hereinafter *Glossary*].

40. *See* Interview with Hon. Ralph Ferguson, Former Minister of Agriculture, in Toronto, Can. (July 10, 1997) (on file with the author). Mr. Ferguson was responsible for introducing a Private Members' Bill in the House of Commons to ban MMT. *Id.*

41. The order paper is the "official agenda of the House of Commons, published for each sitting day, listing all items that may be brought forward on that particular day." It is renewed each session, so that if a session ends and a bill has not passed and is not carried forward, it is said to "die on the order paper." *See Glossary, supra* note 39. *See also* Barrie McKenna, *Fuel-additive Bill Expected to Stay Dead?*, *GLOBE & MAIL*, Feb. 8, 1996, at B1, B6.

42. *See* STANDING COMMITTEE, *supra* note 28.

Committee on Energy, the Environment and Natural Resources convened to consider Bill C-29 in February 1997.⁴³ The ban on MMT passed its third reading in the Canadian Parliament on April 25, 1997 and entered into force on June 24, 1997.⁴⁴

2. MMT in the United States⁴⁵

MMT was banned from use in the United States between 1977 and 1995.⁴⁶ Since 1977, the Environmental Protection Agency has required producers of fuel additives to obtain a "waiver" for the use of MMT.⁴⁷ Ethyl applied for a waiver in 1978, 1981, 1990 and 1991.⁴⁸ Each request was denied by the EPA. Ethyl's requests failed to meet the conditions of section 211(f)(4) of the U.S. Clean Air Act,⁴⁹ which requires the applicant to establish that "fuel or fuel additives and the emission products of such fuel or fuel additives will not cause or contribute to the failure of any emission control or device over the useful life of any vehicle in which such device or system is used."⁵⁰

The EPA justified the denial of Ethyl's applications based on "insufficient data" and required additional tests to be undertaken in each instance. Ethyl appealed the January 1991 denial of an EPA waiver to the U.S. Court of Appeals for the District of Columbia. In April 1993, the U.S. Court of Appeals remanded

43. *See id.*

44. *See id.*

45. *See generally* Steve Pocalyko, Note, *Ethyl Corp. v. Environmental Protection Agency: Circuit Court Limits EPA Administrator's Discretion Under Waiver Provisions of the Clean Air Act*, 9 TUL. ENVTL. L.J. 183 (1995).

46. Lead began to be phased out from gasoline at around the same time. The EPA writes,

[L]ead has been blended with gasoline, primarily to boost octane levels, since the early 1920s. EPA began working to reduce lead emissions soon after its inception, issuing the first reduction standards in 1973, which called for a gradual phasedown of lead. . . . In 1975, passenger cars and light trucks were manufactured with a more elaborate emission control system which included a catalytic converter that required lead-free fuel.

See Environmental Protection Agency, *EPA Takes Final Steps in Phaseout of Leaded Gasoline* (electronic press release Jan. 29, 1996) <<http://www.epa.gov/orcdizux/gopher/Fuels/Additive/Lead/pre-lead.txt>>.

47. *See Ethyl Corp. v. EPA*, 51 F.3d 1053, 1055 (D.C. Cir. 1995).

48. *See id.* *See also* Ethyl Corporation, *MMT Timeline* (visited Sept. 9, 1998) <ethyl.com/time.html>.

49. *See* Clean Air Act of 1955, §§ 202, 211(f)(4), 42 U.S.C. §§ 7521, 7545 (1988 & Supp. V (1993)). *See also* Arnold W. Reitze, Jr., *The Regulation of Fuels and Fuel Additives Under Section 211 of the Clean Air Act*, 29 TULSA L. J. 485 (1994).

50. Testimony of C. Hicks of Ethyl Corporation (May 2, 1997), in STANDING COMMITTEE, *supra* note 28.

Ethyl's waiver application for reconsideration by the EPA. In July 1994, however, the EPA denied Ethyl's waiver application again. Although Ethyl had demonstrated that use of MMT did not "cause or contribute to a failure of any emission control or device,"⁵¹ the EPA later found that there was "a reasonable basis for concern regarding the potential adverse effects on public health which could result from the emissions of manganese particulates associated with MMT use."⁵² Ethyl again appealed this decision to the U.S. Court of Appeals, which ruled in Ethyl's favor.⁵³ The Court found that the EPA had exceeded its statutory authority under section 211(f)(4) of the Clean Air Act. A waiver application can be granted or denied only if the fuel additive "will cause or contribute to a failure of any emission control device or system." The section does not contemplate the denial of a waiver based on a public health effect. Accordingly, the EPA granted a waiver for MMT on July 17, 1995.⁵⁴ Although MMT is now a legal fuel additive in the United States, its use is not widespread. Presently, U.S. gasoline firms representing over 70% of gasoline produced in the United States are not using MMT.⁵⁵ The firms may not be using MMT because of environmental concerns, or they may not want to undergo expensive capital changes to blending facilities in order to use the additive, which had been banned for the previous 17 years. It is also possible that they are waiting to see how this issue is finally settled before making any changes to their operations.

IV. STAKEHOLDER POSITIONS

In both the United States and Canada, a number of powerful stakeholders have become involved in the MMT dispute. Some have expressed environmental concerns; others have raised economic and legal issues. In order to analyze the questions posed at the outset of this Article, it is necessary to outline

51. Fuels and Fuel Additives: Extension of Time and Findings Concerning Fuel Additive Waiver Applications, 58 Fed. Reg. 64761 (1993).

52. Fuel and Additives; Grant of Waiver Application, 60 Fed. Reg. 36414 (1995).

53. See *Ethyl Corp. v. EPA*, 51 F.3d 1053, 1065 (D.C. Cir. 1995).

54. See *id.*

55. See Environmental Defense Fund, *Makers of Over 70% of U.S. Gasoline Reject MMT Use* (electronic press release May 1, 1996) <<http://www.edf.org/pubs/EDF-Letter/1996/May/a-mmt.html>>. The oil companies that have confirmed in letters to the Environmental Defence Fund that they are not presently using MMT are Amoco, Anchor, ARCO, BP, Chevron, Conoco, Exxon, Hess, Marathon Oil, Mobil, Pennzoil, Phillips, Shell, Sun and Texaco. See *id.*

the claims of the stakeholders by issue and attempt to evaluate their validity.

1. *The Environmental Claims*

Environmental non-governmental organizations (ENGOs) both in Canada and the United States have exerted considerable effort to have MMT banned as a fuel additive. Large coalitions have formed in both Canada and the United States.⁵⁶ The coalition in the United States, led by the Environmental Defense Fund, claims to represent thirty-seven environmental, medical, senior citizens, consumer, and religious groups totaling more than 14 million members in the United States and Canada.⁵⁷ Environmental groups are concerned about the toxic effects of

56. Groups opposed to MMT in Canada are represented by the Coalition for Banning MMT and include the following organizations: Allergy/Asthma Information Association, Association of International Automobile Manufacturers in Canada, Canadian Automobile Association, Canadian Institute of Child Health, Council of Canadians, the Cities of North York and Toronto Public Health Departments, Environmental Defense Fund, Learning Disabilities Association of Canada, Motor Vehicle Manufacturers' Association of Canada, Ontario Public Health Association, Pollution Probe and Sierra Club of Canada. See Canada Newswire, *Coalition Want MMT-Free Fuel for Canadians Now* (electronic press release Sept. 18, 1996) <www.newswire.ca> (on file with MINN. J. GLOBAL TRADE) [hereinafter Canada Newswire]. Groups opposed to MMT in the United States include the following organizations: Environmental Defense Fund, Alliance to End Childhood Lead Poisoning, American Lung Association of Massachusetts, American Psychological Association, Boston Women's Health Book Collective, Centre for Auto Safety, Centre for Environmental Legal Studies, Clean Air Council, Coalition to End Childhood Lead Poisoning, Conservation Law Foundation, Consumer's Union, Environmental Advocates, Environmental Health Watch, Friends of the Earth, Harbour-UCLA Research and Education Institute, Intercommunity Centre for Justice and Peace, The Joseph P. Kennedy, Jr. Foundation, Kentucky Resources Council, Inc., Lead Safe California, League of Conservation Voters, Learning Disabilities Association of Canada, Learning Disability Association, Montana Environmental Information Centre, National Parks and Conservation Assoc., National Wildlife Federation, Natural Resources Council of Maine, Natural Resources Defense Council, New Jersey City Action, Parkinson's Action Network, Parkinson's Disease Foundation, Inc., Physicians for Social Responsibility, Population Action International, Sierra Club, Sierra Club Legal Defense Fund, Inc., Society for the Developmental and Behavioural Pediatrics, United Methodist Board of Church and Society, U.S. Public Interest Research Group, Zero Population Growth. See Letter from Environmental Defense Fund, to Mr. L.G. Rawl, Chairman and CEO, Exxon Corporation (Feb. 14, 1996) (on file with MINN. J. GLOBAL TRADE) [hereinafter EDF Letter]; Environmental Defense Fund, *Consumers Union Says "No" to MMT* (electronic press release July 1, 1996) <<http://www.edf.org/pubs/EDF-Letter/1996/Jul/j-cummt.html>>.

57. See EDF Letter, *supra* note 56; Sierra Club, *Environmentalists Hail Minister's Decision to Ban MMT* (electronic press release Apr. 19, 1996) <<http://www.sierraclub.org/canada/national/media/mmt1.txt>>.

high levels of airborne manganese.⁵⁸ Manganese is emitted from autos in very fine particles which enter the lungs.⁵⁹ Adults can usually metabolize manganese if it is contained in food, but when manganese is absorbed into the lungs, it accumulates in the body.⁶⁰ At high levels of exposure, manganese settles primarily in the brain, causing neurological impairments with symptoms similar to Parkinson's disease.⁶¹ Studies have suggested that manganese affects behavioral characteristics and learning ability in children.⁶² The ENGOs are also concerned that the public health effects of longer-term, lower-dose exposures resulting from MMT use cannot be adequately assessed due to a lack of scientific data.⁶³ Accordingly, the ENGOs believe that there are sufficient indications of harmful effects to justify a ban on MMT.⁶⁴ The ENGOs advocate a ban pursuant to the precautionary principle, which states that action may be taken before the scientific evidence is exhaustive and conclusive so that the public is not used as a testing ground for potentially harmful products.⁶⁵

In addition to the impact of airborne manganese, the ENGOs allege that MMT increases smog through its disabling effects on auto emissions control equipment and catalytic converters, thereby causing human respiratory problems.⁶⁶ Although the ENGOs concede that there is some reduction in nitrous oxide (NO^x) emissions through the use of MMT, they contend that such a benefit is minimal and far outweighed by the potential harms.⁶⁷

On the other side of this debate, Ethyl claims that there are "important environmental and economic benefits associated with MMT."⁶⁸ Ethyl writes:

58. See EDF Letter, *supra* note 56; Sierra Club, *supra* note 57.

59. See Gina Solomon MD, MPH, *MMT Manganese in Gasoline: Potential Public Health Effects* (visited July 1997) <<http://www.igc.apc.org/psr/index.html>> (on file with *Minnesota Journal of Global Trade*).

60. See *id.*

61. See *id.*

62. See *id.*

63. See EDF Letter, *supra* note 56; Sierra Club, *supra* note 57.

64. See *id.*

65. See Environmental Defense Fund, *Environmental Defense Fund Urges Oil Firms to Take a Strong "No MMT" Pledge* (electronic press release July 30, 1996) <<http://www/edf/org/pubs/newsreleases/1996/jul/e%Fnommt.html>>.

66. See Canada NewsWire, *supra* note 56.

67. See *id.*

68. Ethyl Corporation, *MMT Q&A* (visited Sept. 9, 1998) <www.ethyl.com/mmtqa.html>.

Studies have proven that MMT is good for the environment. MMT in gasoline can reduce smog-related nitrogen oxide emissions from automobile tailpipes by 20 percent, as well as reduce tailpipe emissions of carbon monoxide. In addition, MMT could cut noxious pollutants created annually during the refining process by 10 billion pounds of carbon dioxide, 11 million pounds of nitrogen oxide, 3 million pounds of carbon monoxide and 150,000 pounds of sulfur dioxide. For refineries, MMT is a cost-effective octane improver that saves energy by reducing crude oil consumption. Use of the additive would lessen U.S. dependence on foreign crude oil by up to 30 million barrels a year, creating a savings to refiners of up to \$500 million a year.⁶⁹

These conclusions were challenged in a study commissioned by the Motor Vehicles Manufacturing Association (MVMA).⁷⁰ This study found that the "scientific rigour of the experiments is uncertain" and improvements in NO^x emissions were considerably overestimated.⁷¹ The Senate Standing Committee considered the available scientific evidence and found that there "appears to be insufficient data to conclude that the emission of manganese resulting from the combustion of MMT in gasoline does not pose a public health problem."⁷² Despite the evidence introduced by ENGOs supporting the allegation that MMT is a dangerous neurotoxin, the Senate Committee based its conclusion on a 1995 Health Canada risk assessment of MMT's health implications which found that "manganese emissions from MMT are unlikely to pose a risk to health for any sub-group of the population."⁷³ The Senate Committee did find that if "MMT use is proven to cause increases in emissions of HC, CO and NO^x, it could pose a public health risk," although it later found that use of MMT actually reduced NO^x.⁷⁴

It is difficult to ascertain the degree of health risk posed by the use of MMT in gasoline, given the wide divergence of scientific evidence on this topic and the lack of consensus even within the Canadian federal government.⁷⁵ It is significant to note that MMT has not passed the thresholds required in order to be banned as a toxic substance under the Canadian Environmental

69. *Id.*

70. See B. Abraham & J.F. Lawless, *Analysis of 1988 and 1992-93 Ethyl Corporation Test Fleet HC and NO^x Emissions*, Institute for Improvement in Quality and Productivity (Oct. 18, 1995) (on file with *Minnesota Journal of Global Trade*).

71. *Id.*

72. STANDING COMMITTEE, *supra* note 28.

73. Testimony of D. Krewski, Health Canada (June 2, 1997), in STANDING COMMITTEE, *supra* note 28.

74. STANDING COMMITTEE, *supra* note 28.

75. See *id.*

Protection Act (CEPA).⁷⁶ Article 34 of CEPA would allow a ban on MMT as a "toxic substance," but this would require Health Canada to declare it as such, which it has not done due to a lack of supporting evidence.⁷⁷ Articles 46 and 47 of CEPA would permit a ban on MMT if there were clear evidence that it would impair the functioning of vehicle equipment.⁷⁸ The "precautionary principle" approach is not included in this part of CEPA; the Act imposes a high standard requiring evidence to be definitive.⁷⁹ Environment Canada decided not to proceed by this route because of the inconclusive and contradictory evidence on whether MMT impaired the functioning of vehicle equipment.⁸⁰

2. *The Protected Industry Claim*

Environment Canada introduced Bill C-29 as part of a "Clean Air Agenda" designed to improve air quality.⁸¹ The agenda prioritizes "new car emission standards, new fuel efficiency rules and new encouragement for alternative fuels."⁸² This item originated from a set of recommendations by the Canadian Council of Ministers of the Environment (CCME) Task

76. CEPA, *supra* note 5.

77. *See id.* at § 34(1)(l).

78. *See generally id.*

79. *See supra* note 281 and accompanying text. This may soon change. A recent proposal to amend CEPA died on the order paper in the Canadian Parliament, but may be reintroduced. There were significant increases in the power of CEPA to "enshrine pollution prevention as a national goal". *See* Environment Canada, *Environmental Protection Legislation Designed for the Future - A Renewed CEPA: A Response to the Recommendations of the Standing Committee on Environment and Sustainable Development outlined in its Fifth Report* (visited Oct. 9, 1998) <<http://www.ec.gc.ca/cepa/govtresp/efront/html>>.

80. *See* Telephone Interview with Frank Vena, Environment Canada (July 8, 1997).

81. The Clean Air Agenda contains five priorities as outlined by Minister Sergio Marchi:

- 1) The health of Canadians; 2) federal leadership on national environmental standards and the modernization of the Canadian Environmental Protection Act; 3) new car emission standards, new fuel efficiency rules and new encouragement for alternative fuels; 4) building environmental citizenship and partnership across Canadian society; and 5) vigorous bilateral and multilateral action.

Minister of the Environment Sergio Marchi, Address at Transportation, Air Quality, and Human Health Conference at York University, Toronto (Apr. 25, 1996) (visited Oct. 13, 1998) <http://www.doe.ca/minister/speeches/sust_s_e.html>.

82. Canadian Council of Ministers of the Environment Task Force on Cleaner Vehicles and Fuels, Report to the Canadian Council of Ministers of the Environment, at (Oct. 23, 1995) (unpublished manuscript on file with *Minnesota Journal of Global Trade*) [hereinafter Report to Canadian Council].

Force on Cleaner Vehicles and Fuels.⁸³ The recommendations were developed through a consultative process which included, among others, representatives from ENGOs.⁸⁴ The CCME report's first recommendation was to adopt "tighter new vehicle emission standards in harmony with the United States."⁸⁵ Its second recommendation was to develop and support "alternative transportation fuels and advanced technology vehicles."⁸⁶ The report's fifth recommendation established maximum sulphur content for low-sulphur diesel fuels.⁸⁷ The sixth recommendation set maximum amounts of toxic chemicals that contribute to air pollution and ozone depletion: benzene, aromatics, olefins, and sulphur.⁸⁸ The report concluded that by following these recommendations there would be significant reductions in fine particulate matter, ozone, and toxic emissions.⁸⁹ Corresponding health benefits would accrue to Canadians over the next twenty-three years: mortality would be reduced by up to 4,400 cases, chronic bronchitis by up to 29,600 cases, and cancer by up to 60 cases.⁹⁰ The report further claimed that the economic benefits could reach \$31 billion over the same time period.⁹¹

The report did not directly address the issue of MMT, but it did so indirectly through the support of stricter standards and specific ceilings on pollution-causing chemicals.⁹² The level of emissions established by this report could not be met by the current automobile technology and the continued use of fuel containing MMT.⁹³ The report also highlighted that the MMT issue is really part of a larger framework in which fuel formulations are coming under increasing scrutiny, particularly other fuel additives such as benzene and sulphur.⁹⁴ Environment Canada has initiated action on all of these recommendations.⁹⁵

83. *See id.*

84. *See* Canadian Council of Ministers of the Environment, Communiqué: Environment Ministers Endorse Tougher Standards for Vehicles and Fuels (Oct. 24, 1995) (unpublished manuscript on file with *Minnesota Journal of Global Trade*).

85. Report to the Canadian Council, *supra* note 82, at iii.

86. *Id.* at iv.

87. *See id.* at vi.

88. *See id.* at vi-viii.

89. *See id.* at 61.

90. *See id.* at "Table of Health Benefits: Estimated Health Benefits (1997-2020) for Canada."

91. *See id.*

92. *See id.* at vi-viii.

93. *See id.*

94. *See* Report to the Canadian Council, *supra* note 85, at vi-viii.

95. *See id.*

In furtherance of these recommendations and the Clean Air Agenda, the issue of alternative fuel additives has moved into the spotlight.⁹⁶ Ethanol, produced primarily from corn, burns cleaner than MMT but is more expensive to produce.⁹⁷ The ethanol industry claims that the use of ethanol in gasoline will result in a 25-30% reduction in emissions of carbon monoxide and an unspecified reduction in the emissions of particulate matter, air toxins, and ozone.⁹⁸ Unlike fossil fuels, ethanol is produced from renewable biological feedstocks such as grain.⁹⁹

Ethanol proponents also allege that the use of ethanol as a fuel additive will benefit the economy.¹⁰⁰ The Renewable Fuels Association writes that increased ethanol production "will provide a new market for agricultural products — improving financial stability and security for farmers — in addition to direct and indirect employment opportunities for all aspects of ethanol production: from farming to transportation and manufacturing."¹⁰¹

The industry further argues that prices will fall as production increases and economies of scale are achieved.¹⁰² Currently, only four plants in Canada produce ethanol.¹⁰³ Commercial Alcohol owns two plants, one recently built in Chatham, Ontario and the other in Tiverton, Ontario.¹⁰⁴ Other producers own plants in Saskatchewan and Manitoba.¹⁰⁵ Among the economic claims of the plant in Chatham are the creation of 400 direct and indirect jobs, a new annual market for 15 million bushels of locally-produced corn, and additional economic activ-

96. *See id.*

97. *See* Commercial Alcohol, *Fuel Ethanol, the Environmentally Friendly Fuel* (visited Oct. 30, 1998) <[wysiwyg://www.comalc.com/fuel_ethanol.htm](http://www.comalc.com/fuel_ethanol.htm)> [hereinafter *Fuel Ethanol*]; Renewable Fuels Association, *Less Pollution* (visited Oct. 30, 1998) <<http://ethanolrfa.org/rfa.html>>; Canadian Renewable Fuels Association, *Just How Environmentally Friendly is Ethanol?* (visited Oct. 30, 1998) <www.greenfuels.org/ethanenv2/html>. There is currently a strong and effective U.S. ethanol lobby which has succeeded in securing tax incentives for the ethanol industry. *See* Renewable Fuels Association, 51 ETHANOL REP., June 26, 1997 (on file with *Minnesota Journal of Global Trade*) [hereinafter *Ethanol Report*].

98. *See* Canadian Renewable Fuels Association, *supra* note 97.

99. *See* *Ethanol Report*, *supra* note 97.

100. *See id.*

101. *Id.*

102. *See id.*

103. *See* Telephone Interview with Jim Johnson, President, Canadian Renewable Fuels Association (July 10, 1997) (on file with author) [hereinafter interview with Jim Johnson].

104. *See* *Fuel Ethanol*, *supra* note 97.

105. *See* Interview with Jim Johnson, *supra* note 103.

ity from trucking maintenance and supplies required for the plant.¹⁰⁶ Commercial Alcohol has also stated that its product contains over 75% Canadian content. Its press release cited a number of additional Canadian suppliers that had substantial contracts in place at the time the Chatham plant was built.¹⁰⁷

Environment Canada has provided financial support to Canada's fledgling ethanol industry.¹⁰⁸ Environment Canada has also justified the introduction of the ban on MMT, stating:

[t]he removal of MMT from Canadian gasoline presents an opportunity for the introduction and use of ethanol and other substitutes which could form an important element of a broader-based national policy on the domestic production and use of renewable energy sources. Such a policy would be consistent with the Red Book commitment in the Liberal Party of Canada Agricultural Policy Paper to eliminate MMT from gasoline.¹⁰⁹

Again, supporters of an MMT ban cite reasons other than legitimate environmental concerns for banning MMT. They seek to provide "shelter" for a domestic infant industry competing with a mature United States industry.¹¹⁰ This brings into question the motivations of the Canadian Government in passing Bill C-29, as it appears to be responding to the strong agriculture lobby pressing for protection and assistance.¹¹¹ David Vogel has found a similar political economy of ethanol in the United States, where a powerful farm lobby exists.¹¹² He notes that ethanol has historically been a heavily subsidized and protected industry not for its dubious environmental benefits, but because it increases farm income and reduces U.S. dependence on imported oil.¹¹³

The Canadian Petroleum Products Institute (CPPI) represents all major oil producers in Canada and has raised concerns

106. See Commercial Alcohol, (electronic press release Oct. 1, 1996) <http://www.comalc.com/press_releases.htm:ChathamOfficial1>.

107. See *id.*

108. See Interview with Jim Johnson, *supra* note 103.

109. Environment Canada, *News Release and Background to the Press Release: Government Reintroduces MMT Bill C-94* (electronic press release Apr. 18, 1996) <http://www.ec.gc.ca/press/mmt_b_e.html>.

110. See ALAN RUGMAN & ALAIN VERBEKE, *GLOBAL CORPORATE STRATEGY & TRADE POLICY* 69-74 (1990).

111. Terence Corcoran has written that "the other federal agenda is to cater to the growing ethanol lobby. Mr. Marchi explicitly acknowledged that the MMT ban is part of a government policy to boost ethanol, which is manufactured from corn grown in numerous Liberal ridings around Ontario." Terence Corcoran, *Introducing Sheila Marchi*, *GLOBE & MAIL*, Sept. 27, 1996, at B2.

112. See Vogel, *supra* note 11, at 112.

113. See *id.*

about the environmental claims of the ethanol industry.¹¹⁴ The CPPI argues that a full environmental life-cycle analysis (i.e., from the growth of the corn to the burning of the fuel) must be undertaken to evaluate ethanol's environmental benefits.¹¹⁵ Vogel notes that ethanol is not clearly more environmentally friendly than its alternatives.¹¹⁶ One study undertaken by the National Academy of Sciences in the United States found that "while [ethanol blends] would reduce carbon monoxide emissions by 25 percent, hydrocarbons would increase by as much as 50 percent and nitrogen oxide by 15 percent" and that "[e]thanol may also contribute to ozone pollution (smog) because it evaporates relatively quickly."¹¹⁷ The study concluded that "using ethanol as a blending agent in gasoline . . . would not achieve significant air-quality benefits and, in fact, would likely to be [sic] detrimental."¹¹⁸

The CPPI is particularly concerned about the resolution of the MMT controversy because other octane enhancers (e.g., sulphur and benzene) will be considered under the Clean Air Agenda.¹¹⁹ The CPPI alleges that the cost of oil refineries cutting sulphur from gasoline would be high.¹²⁰ A recent draft report by a joint committee of industry and government examined the health and economic benefits of reducing sulphur pollution from cars and trucks.¹²¹ It estimated that "sixteen refineries would have to spend nearly \$1.8 billion to cut the sulphur in their gasoline to the California benchmark" and that "millions more would have to be spent annually on operating costs."¹²²

3. *The Emissions Control Malfunction Claims*

The Canadian Vehicles Manufacturers Association (CVMA) has consistently supported a ban on MMT since the early

114. See Interview with Brendan Hawley, Vice-President, Government Relations, Canadian Petroleum Products Institute, at Ottawa, Ontario (Apr. 1996) (on file with the author) [hereinafter Interview with Brendan Hawley].

115. See *id.*

116. Vogel, *supra* note 11, at 114.

117. *Id.* (citation omitted).

118. *Id.* at 114 n.8 (quoting James Bovard, *Corporate Welfare Fueled by Political Contributions*, 94 BUS. & SOC'Y REV. 24, 26-27 (1995)).

119. See Interview with Brendan Hawley, *supra* note 114.

120. See *id.*

121. The Financial Post obtained copies of these reports, which are not available to date. See John Geddes, *Refiners Facing Heavy Costs*, FIN. POST, Apr. 10, 1997, at 10.

122. *Id.*

1990s.¹²³ The CVMA represents all twenty-two manufacturers that supply automobiles to the Canadian market and has done extensive testing and research on the effects of MMT on automobiles.¹²⁴ It claims that MMT leaves residues in the auto systems that have an adverse effect on oxygen sensors and catalytic converters and are responsible for spark plug misfires.¹²⁵ As the vehicle manufacturers have anticipated the new generation of emissions standards, the majority of 1996 vehicles for sale in Canada met 1996 United States emissions requirements.¹²⁶ Beginning in 1998, the Onboard Diagnostic System II (OBD II) became a mandatory component of emissions control systems.¹²⁷ MMT residues affect the monitoring of catalysts and affect malfunction indicator lights which identify to drivers emissions-related problems in vehicles.¹²⁸ Indicator failure has led to an increase in warranty claims and corresponding costs, which are passed along to consumers.¹²⁹ Some manufacturers have gone so far as to write exclusions from liability into their warranties if the consumer uses MMT gasoline.¹³⁰ Manufacturers are further threatening to withdraw the industry-standard 100,000 kilometer warranty if MMT is not removed from gasoline.¹³¹ This would have an enormous impact on Canadian consumers.

The CVMA further argues that

motor vehicle emissions control has almost exclusively focused on vehicle hardware. To meet continuing demands for better ambient air quality, the potential improvements available through gasoline formulation and regular emissions inspection maintenance programs in densely populated areas must be pursued in addition to the further

123. See Interview with Mark Nantais, President, Canadian Vehicle Manufacturing Association, in Toronto, Ont. (July 11, 1997) (on file with the author) [hereinafter Interview with Mark Nantais].

124. See *id.*

125. See *id.*

126. See *id.*

127. See *id.*

128. See Motor Vehicles Manufacturing Association and the Association of International Automobile Manufacturers of Canada, *The Impact of Manganese-Based Fuel Additives on Vehicle Emission Control Technology in Canada: A Report for Submission to the Standing Committee on Environment and Sustainable Development* (Oct. 24, 1995) (on file with *Minnesota Journal of Global Trade*) [hereinafter MVMA].

129. See *id.* (noting that “[w]arranty claims and consumer complaints continue to indicate the adverse effects of MMT in areas such as spark plugs, oxygen sensors and catalysts”).

130. See Interview with Mark Nantais, *supra* note 123.

131. See *id.*; Les Sillars, *High-octane Regionalism*, W. REP., Nov. 18, 1996.

gains which can be attained through technologically advanced vehicle control hardware.¹³²

The CVMA has invested over \$4 billion in research and development to meet the new emissions standards, which remove up to 98% of hydrocarbons, carbon monoxide, and nitrogen oxide from exhaust emissions.¹³³ This technology is at risk of becoming ineffective with the use of MMT.¹³⁴ The major auto firms perform joint venture research to develop the technology and target its use for a single North American market. The United States emissions standards, while undergoing revision, are currently more stringent than Canadian standards.¹³⁵ However, different technology cannot be developed for different jurisdictions; it must be viable for the whole continent, which further supports the auto industry's goal of a harmonized gasoline standard.¹³⁶ The CVMA contends that it is impossible to meet the "incessant demands for lower and lower emissions" while MMT is in gasoline.¹³⁷ It argues for a team effort which would include the full participation of consumers, fuel suppliers, maintenance providers, and numerous governmental agencies¹³⁸ in order to continue to minimize adverse environmental effects.

In response to these claims, the Canadian Petroleum Products Institute (CPPI) commissioned a study of the effects of MMT on vehicle emissions monitoring systems.¹³⁹ The study tested 206 vehicles with an aggregate mileage of 11.4 million kilometers.¹⁴⁰ The study found "no evidence of any negative effect on 180 of 185 test vehicles, four vehicles had problems unrelated to the use of MMT, and one had problems resulting from a faulty spark plug."¹⁴¹ Additional testing conducted by Ethyl found that MMT had no effect on OBD II or any other vehicle equipment.¹⁴²

132. MVMA, *supra* note 129.

133. See Interview with Mark Nantais, *supra* note 123.

134. See *id.*

135. See *id.*

136. See *id.*

137. STANDING COMMITTEE, *supra* note 28, at 1 (noting that the world's major vehicle manufacturers would be the first to support the additive if it had the claimed benefits).

138. See *id.*

139. See Canada NewsWire, *Province's Concern Over MMT Ban Confirmed By New Study Released Today*, (electronic press release Oct. 29, 1996) <www.newswire.ca>.

140. See *id.*

141. *Id.*

142. See STANDING COMMITTEE, *supra* note 28, at Appendix.

In its review of Bill C-29, the Senate Standing Committee considered whether MMT did indeed cause OBD malfunctioning.¹⁴³ The Committee noted the inconsistencies in the evidence but concluded that “based on the preponderance of the evidence, [sic] the government was justified in invoking the precautionary principle and introducing Bill C-29 as the responsible, prudent course of action.”¹⁴⁴

Given this divergent and highly technical evidence, it is hard to evaluate the harm that MMT does cause emissions control systems. Admittedly, the auto industry’s real concern is whether a North American industry standard will emerge in fuel and hardware that will allow them to capitalize best on their investment in technology development. One North American standard in one North American market would allow producers to achieve economies of scale. In that sense, losing this battle could have a detrimental economic impact on them.

V. THE LEGAL CHALLENGES

The MMT regulation has been challenged in four different legal processes. First, within the Canadian domestic courts, Ethyl challenged Bill C-29 on constitutional grounds, asserting that it amounted to “an unwarranted intrusion into an area of provincial jurisdiction.”¹⁴⁵ At the time the regulation was repealed, the case had not gone to trial. Second, the Government of Alberta, backed by the Governments of Quebec, Nova Scotia, and Saskatchewan brought and subsequently won a dispute under Canada’s Agreement on Internal Trade (AIT).¹⁴⁶ Third, Ethyl initiated an action under NAFTA’s investor-state dispute settlement mechanism (Chapter 11),¹⁴⁷ which was ultimately settled in favor of Ethyl before a decision was rendered.¹⁴⁸ Fourth, Ethyl attempted to bring a claim under NAFTA’s state-

143. See *id.*

144. *Id.*

145. Barrie McKenna, *Alberta Vows to Challenge Federal Ban on Gas Additive*, GLOBE & MAIL, Jan. 31, 1997, at B8 (referring to a statement made by Bruce Campbell, an Ethyl lawyer); Thomas Claridge, *Ethyl Canada Opens Second Front on MMT*, GLOBE & MAIL, Oct. 27, 1997, at B4.

146. See *infra* notes 190-205 and accompanying text.

147. See *U.S. May Challenge Canada via NAFTA in MMT Case, Ex-Negotiator says*, INSIDE NAFTA, Nov. 29, 1995, at 3-4; *Company May Press US for NAFTA Challenge on Canadian Fuel Bill*, INSIDE NAFTA, Nov. 15, 1995, at 1, 18-19; *Canadian MMT Bill Heads to Senate, Closer to Chapter 11 Complaint*, INSIDE NAFTA, Jan. 8, 1997, at 1.

148. See Shawn McCarthy, *Threat of NAFTA Case Kills Canada’s MMT Ban*, GLOBE & MAIL, July 20, 1998, at A1.

to-state dispute settlement procedure (Chapter 20), which did not proceed because the United States government elected not to pursue the claim on Ethyl's behalf.¹⁴⁹

1. *The Canadian Constitutional Challenge*

Ethyl Canada brought a suit against the Attorney General of Canada challenging the constitutionality of Bill C-29. The case did not proceed to trial, but the parties filed the initial pleadings with the Ontario Court (General Division) in June 1997.¹⁵⁰

In its Statement of Claim, Ethyl argued that the regulation was "*ultra vires* the Parliament of Canada insofar as it is inconsistent with the provisions of the Constitution Act, 1867."¹⁵¹ Ethyl supported this position by arguing that the legislation's subject matter was not the regulation of trade and commerce (a matter of federal jurisdiction), since the legislation did not regulate trade as a whole but only the trade of a fuel additive.¹⁵² The legislation could not be enacted to protect the natural environment or human health (partially federal jurisdiction), since the scientific evidence did not meet the required threshold.¹⁵³ Thus there existed no rational connection between the government's stated objectives and the legislative means by which it sought to achieve them.¹⁵⁴ Rather, Ethyl argued that the subject matter of Bill C-29—the regulation of the production and manufacture of fuels—fell within exclusive provincial jurisdiction.¹⁵⁵ In its defense, the federal government denied Ethyl's claims and argued that the subject matter of the regulation was "trade in or importation for a commercial purpose of controlled substances." Thus the regulation fell within federal jurisdiction, namely the regulation of "interprovincial trade in and the importation for commercial purposes of certain manganese-based substances."¹⁵⁶

149. See *infra* notes 262-72 and accompanying text.

150. See Statement of Claim, *Ethyl Canada Inc. v. Attorney-Gen. of Canada and the Minister of the Env't*, Ontario Court of Justice (General Division) (No. 97-CV-126708) (on file with the author) [hereinafter Statement of Claim].

151. *Id.* at para. 1(a).

152. See *id.* at para. 28.

153. See *id.* at paras. 34-56.

154. See *id.* at paras. 44, 55.

155. See *id.* at paras 25-57.

156. Statement of Defence, *Ethyl Canada Inc. v. Attorney-Gen. of Canada and the Minister of the Env't*, Ontario Court of Justice (General Division), para. 6 [hereinafter Statement of Defence].

In a pre-trial motion seeking leave to intervene, Judge Swinton granted the Canadian Vehicle Manufacturers Association (CVMA) intervenor status, but denied the same to Pollution Probe, an environmental NGO.¹⁵⁷ Instead, the Judge granted Pollution Probe a more circumscribed "friend of the court" status, because it failed to show "a direct interest in and likelihood that it can make a useful contribution to the proceedings."¹⁵⁸ In response to the federal government's own assertion that the purpose of the legislation was to regulate interprovincial and international trade rather than environmental protection, Judge Swinton wrote:

Pollution Probe's desire to lead evidence of the impact of MMT on human health and to cross-examine Ethyl about this issue suggests a different and broader basis for supporting the legislation than that which appears to lie behind its enactment. It is important to note that we are dealing here with a distribution of powers case, which requires the federal government to show that the purpose or effects of the legislation bring it within a federal head of jurisdiction. If the federal government does not believe that there is a general health risk underlying the legislation because of manganese in the atmosphere, and does not rest the legislation on this factual basis, there is no need for the evidence which Pollution Probe seeks to put forward.¹⁵⁹

It is significant that in this proceeding, the federal government categorized the environmental aspects as marginal and "irrelevant to the issues raised in this action."¹⁶⁰ The federal government thereby raised serious questions about its own legislative intent, given that the regulation was developed by the Minister of the Environment and "sold" to the Canadian public under the guise of environmental protection.¹⁶¹ While this observation may not be relevant from a constitutional perspective, it is an important indicator of protectionist regulation from an international trade perspective.

2. Canada's Agreement on Internal Trade

In October 1997, following an unsuccessful consultation period with the Canadian government, the Alberta provincial government requested the establishment of a panel under Article

157. Reasons for Judgment, *Ethyl Canada Inc. v. Attorney-Gen. of Canada and the Minister of the Env't*, Ontario Court of Justice (General Division).

158. *Id.*

159. *Id.*

160. Statement of Defence, *supra* note 156, at para. 6.

161. *See supra* notes 4 & 40 and accompanying text.

1704 of the Canadian Agreement on Internal Trade (AIT).¹⁶² The provincial governments of Quebec, Nova Scotia, and Saskatchewan intervened in support of Alberta.¹⁶³ The three provinces requested that "the panel recommend that Ottawa repeal the ban and work with the provinces to determine whether the additive does in fact pose an environmental or health risk." A dispute resolution panel heard these arguments in April 1998 and rendered a decision in June, ruling in favor of the three provinces.¹⁶⁴

The objectives of the AIT – much like the provisions in NAFTA and the General Agreement on Tariffs and Trade (GATT/WTO)¹⁶⁵ – are, *inter alia*, to "reduce and eliminate . . . barriers to the free movement of persons, goods, services and investments within Canada" and "to establish an open, efficient and stable domestic market."¹⁶⁶ As under NAFTA and GATT, trade barriers may be established where it can be demonstrated that such barriers achieve a legitimate objective based on sound science and risk assessment without imposing an undue or disguised restriction on trade.¹⁶⁷ The three provinces challenged the regulation on the basis that the legislation did not meet

162. See Agreement on Internal Trade, REPORT OF THE ARTICLE 1704 PANEL CONCERNING A DISPUTE BETWEEN ALBERTA AND CANADA REGARDING THE MANGANESE-BASED FUEL ADDITIVES ACT, June 12, 1998, File No. 97/98-15-MMT-P058, (visited Oct. 9, 1998) <<http://www.intrasec.mb.ca/eng/0798/mmt.pdf>> [hereinafter AIT Report]; Shawn McCarthy, *Provinces Attack MMT Ban: Alberta Leads Charge in First Case Under Internal Trade Pact*, GLOBE & MAIL, Apr. 16, 1998., at B1.

163. See AIT Report, *supra* note 162, at 1.

164. The Panel was chaired by Clay Gilson, Professor Emeritus, University of Manitoba. The other Panelists were: Bob Rae, Former Premier of Ontario; Kathleen Kelly, Arbitration Lawyer; Claude Castonguay, Vice-Chairman of the Board, Laurentian Bank; and Arthur Mauro, Former Chairman and CEO of the Investors Group. See AIT Secretariat website (visited Oct. 9, 1998) <<http://www.intrasec.mb.ca>>.

165. See Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 15, 1994, LEGAL INSTRUMENTS - RESULTS OF THE URUGUAY ROUND Vol. 1 (1994), 33 I.L.M. 1125, 9 (1994) [hereinafter Final Act].

166. Agreement on Internal Trade, July 1994, art. 100 (visited Oct. 9, 1998) <<http://www.intrasec.mb.ca/eng/itl.htm>> [hereinafter AIT]. See Donald Lenihan, *When a Legitimate Objective Hits an Unnecessary Obstacle: Harmonizing Regulations and Standards in the Agreement on Internal Trade*, in GETTING THERE: AN ASSESSMENT OF THE AGREEMENT ON INTERNAL TRADE 26 (M. Trevilcock & D. Schwanen, eds, 1995); Canadian Council of Ministers of the Environment, ENVIRONMENTAL PROTECTION MEASURES AND THE AGREEMENT ON INTERNAL TRADE: A PRACTICAL MANUAL, (1995).

167. See AIT, *supra* note 166, arts. 210, 404 and Annex 405.1, 405.2; Chapters 7 and 9 of NAFTA; GATT Article XX and the GATT/WTO TBT and SPS Agreement.

these requirements and that “the cross-border ban is a blatant example of Ottawa favoring the Ontario-based car makers over the refineries.”¹⁶⁸

1. Provincial Perspectives

The provinces have a special interest in the issue because they all have large refineries within their jurisdictions whose economic interests had been adversely affected by the ban.¹⁶⁹ In its submission to the panel, Alberta cited the expected injury to its refineries alone as \$12 million in capital costs as well as \$11 million annually in operating costs.¹⁷⁰ About one-quarter of the operational costs of the ban, which stem from the monitoring necessary to enforce it, would also be borne by the Alberta refineries.¹⁷¹ Additional costs would be imposed on those refineries that wished to develop stockpiling facilities.¹⁷² Further, Alberta contended that the efficiency and convenience of current supply arrangements would be disrupted.¹⁷³

Saskatchewan and Quebec had similar reasons for bringing the case.¹⁷⁴ The Saskatchewan refinery had no suitable facilities for stockpiling MMT and therefore ran out of it shortly after the legislation came into force.¹⁷⁵ The Saskatchewan refinery had already undertaken the expense of adopting alternative additives and processes to boost its octane ratings at the time of the hearing.¹⁷⁶ Thus Saskatchewan’s search for industry relief took on a somewhat different tone and status than that of Alberta.

The provinces also argued that the federal government was trespassing in an area of provincial jurisdiction and was ignoring the role of federal-provincial co-operation.¹⁷⁷ A provincial government official stated:

168. McCarthy, *supra* note 162, at B1.

169. See Interview with Jim Ogilvie, Internal Trade Representative, Department of Intergovernmental & Aboriginal Affairs, Government of Alberta, by telephone (June 5, 1998) (on file with author) [hereinafter Interview with Jim Ogilvie].

170. See Government of Alberta Submission to AIT Panel. AIT REP. NO. 97/98-15-MMT-PO58, Appendix B (visited Oct. 9, 1998) <<http://www.intrasec.mb.ca.eng/0798/mmt.pdf>> [hereinafter Submission to AIT].

171. See *id.*

172. See *id.*

173. See *id.*

174. See Interview with Jim Ogilvie, *supra* note 169.

175. See *id.*

176. See *id.*

177. See Submission to AIT, *supra* note 170.

A major (possibly primary in magnitude of implications) concern was the overarching one of the appropriate role of the federal government in issues that are in the area of joint federal-provincial or exclusively provincial jurisdiction. There are mechanisms in place for joint decision-making, and the AIT supports this approach, but the federal government chose to act unilaterally. Into this feeds the issue of indirect vs. direct legislation: the federal government could not justify what it wanted to do (ban a substance) under environmental legislation, so turned to trade legislation to accomplish the same end indirectly. The irony is that the substance remains legal to manufacture, sell and use for its intended purpose — it just can't be traded between the territories of two jurisdictions within the same country.¹⁷⁸

In their submission to the Senate Standing Committee on Energy, the Environment and Natural Resources, the Alberta government argued that the ban in MMT was not consistent with “generally-accepted attributes that should characterize sound regulatory legislation”¹⁷⁹ for three reasons. First, where there were issues of overlapping jurisdiction, federal-provincial consultation should occur.¹⁸⁰ In particular, the two sides needed to work cooperatively to ensure a more “consistent, streamlined policy and regulatory framework” in the area of environmental harmonization.¹⁸¹ Here, the federal government acted unilaterally, without taking provincial objections into account. Second, “regulations should serve a clear public purpose, effectively and efficiently.”¹⁸² The ban on MMT did not meet this standard.¹⁸³ Further, the regulatory policy of the Treasury Board Secretariat that mandates public consultation was disregarded, a clear justification for federal intervention and respect for intergovernmental agreements.¹⁸⁴ Third, Alberta questioned the appropriateness of the instrument.¹⁸⁵ The government stated that “legislation should deal directly with the area it is intended to control . . . [and] in this case, a clumsy and inappropriate instrument . . . has been used to achieve a purportedly environmental goal.”¹⁸⁶ The legislature could accomplish its

178. Correspondence with Jim Ogilvie, Internal Trade Representative, Department of Intergovernmental & Aboriginal Affairs, Government of Alberta (June 5, 1998) (on file with author).

179. Government of Alberta Submission to the Senate Standing Committee on Energy, the Environment and Natural Resources, (visited Oct. 9, 1998) <<http://www.gov.ab.ca/iaa/html/billc29.html>> [hereinafter Alberta Submission].

180. *See id.*

181. *Id.*

182. *Id.*

183. *See id.*

184. *See id.*

185. *See id.*

186. *Id.*

environmental goals directly by placing an outright ban on the substance, not just its movement.¹⁸⁷

2. *The AIT Decision*¹⁸⁸: “A GATT’s-Eye View”¹⁸⁹

Alberta argued that Bill C-29 was inconsistent with Articles 100, 401-405.1, 1505.8, and 1508.1 of the AIT.¹⁹⁰ Article 401 covers reciprocal non-discrimination and contains the GATT principles of national treatment and most-favored-nation treatment between the provinces.¹⁹¹ As to the relationship between the federal government and the provinces, Article 401 requires the federal government to treat the goods of a province no less favorably than the best treatment it accords to like, directly competitive, or substitutable goods of other provinces.¹⁹² In addressing this question, the panel considered whether the regulation favored one province or region over another.¹⁹³ The panel found that the regulation applied evenly throughout Canada to all provinces with refineries and that the regulation was consistent with this provision.¹⁹⁴ The panel did not go beyond the assessment that the regulation was non-discriminatory on its face on a regional basis, ignoring that it was discriminatory in its effect – a key motivator in the provinces bringing the dispute.¹⁹⁵ The panel could have found that the regulation had promoted “industrial favoritism,” as it favored Canada’s primary auto-pro-

187. *See id.*

188. *See generally* AIT Report, *supra* note 162.

189. This phrase is taken from Daniel A. Farber and Robert E. Hudec’s article, which considered the U.S. Dormant Commerce Clause (which regulates trade-restricting measures between U.S. states) from the perspective of parallel provisions in the GATT. *See* Daniel A. Farber & Robert E. Hudec, *Free Trade and the Regulatory State: A GATT’s-Eye View of the Dormant Commerce Clause*, 47 VAND. L. REV. 1401, 1401 (1994).

190. The headings of the AIT articles mentioned are as follows: Article 100 (Objectives); Article 401 (Reciprocal Non-Discrimination); Article 402 (Right of Entry and Exit); Article 403 (No Obstacles); Article 404 (Legitimate Objectives); Article 405.1 (Reconciliation); Article 405.1 (Standards and Standards-Related Measures); Article 1505.8 (Precautionary Principle); and Article 1508.1 (Harmonization).

191. *See* GATT *supra* note 167, at arts. III and I, respectively.

192. Article 401.1 reads: “Subject to Article 404, each Party shall accord to goods of any other Party treatment no less favourable than the best treatment it accords to: (a) its own like, directly competitive or substitutable goods; and (b) like, directly competitive or substitutable goods of any other Party or non-Party.” AIT, *supra* note 166, art. 401.

193. *See* AIT Report, *supra* note 162, at 6.

194. *See id.*

195. *See id.*

ducing region (Ontario) over its primary oil-producing region (Alberta), the key rivals in the dispute.

Article 402 of the AIT prohibits measures that restrict the movement of goods, and Article 403 prohibits measures that create obstacles to internal trade. The panel found the measure to be inconsistent with these provisions.¹⁹⁶ However, pursuant to Article 404, and like Chapter 9 of NAFTA and Article XX of GATT/WTO, such breaches can be "saved" where the purpose of the measure is to achieve a legitimate objective, provided that the measure does not "impair unduly" the access of goods to meet that legitimate objective.¹⁹⁷ Contrasting the ban on MMT with the gradual phase-out of lead, the panel found that although there existed a legitimate objective in enacting the regulation, the federal government "had not demonstrated that there existed a matter of such urgency or risk so widespread as to warrant such comprehensive restrictions."¹⁹⁸

Article 404(c), qualified by 1505.7, requires the federal government to choose the least trade-restrictive means necessary to meet its legitimate objective. Article 404(c) is a statutory codification of some of the earlier jurisprudence of GATT/WTO and NAFTA that deals with restrictions on trade in pursuit of legitimate objectives.¹⁹⁹ The panel found that other equally effective and reasonably available measures existed: tradeable permits, taxation, and direct regulation under Article 46 of CEPA.²⁰⁰ Since these other measures would not employ trade rules to achieve other objectives, they were less trade-restrictive, even though they might result in the elimination of MMT from the Canadian marketplace.

Article 405 requires the provinces "to reconcile their standards and standards-related measures by harmonization, mutual recognition or by other means." This provision is similar to

196. See *id.* at 7.

197. Article 404 reads:

Where it is established that a measure is inconsistent with Article 401, 402 or 403, that measure is still permissible under this Agreement where it can be demonstrated that:

- (a) the purpose of the measure is to achieve a legitimate objective;
- (b) the measure does not operate to impair unduly the access of persons, goods, services or investments of a Party that meet that legitimate objective;
- (c) the measure is not more trade restrictive than necessary to achieve that legitimate objective. . . .

198. AIT Report, *supra* note 162, at 9.

199. See Trebilcock & Howse, *supra* note 27.

200. See CEPA, *supra* note 5, at §§ 46-47. See AIT REPORT, *supra* note 162, at 10.

Article 906 of NAFTA and is consistent with the Agreement on Technical Barriers to Trade of GATT/ WTO.²⁰¹ Articles 1508 and 1509 encourage the provinces to harmonize environmental measures under the auspices of the Canadian Council of Ministers of the Environment (CCME) and pursuant to the principles set out by it.²⁰² While Articles 1508 and 1509 do not mandate consensus, they strongly encourage consultation and joint action in the area of environmental standards. The panel found that the federal government failed to work adequately in consultation with the provinces on this issue.²⁰³

In summary, the panel found the regulation inconsistent with the AIT, because it created an obstacle to trade (Articles 402 and 403) not justified by the legitimate objectives test (Article 404) and recommended that the government remove the inconsistency.²⁰⁴ To some extent, this ruling called into question the federal government's commitment to free trade.

This decision intensified the focus on the Chapter 11 investment dispute, which was of interest to the entire trade policy and NGO community as it was the first test case of investor-state dispute settlement. Faced with this public relations problem and the fear that they could face a more expensive (\$250 million) and embarrassing loss before the Chapter 11 panel, the Canadian government settled the Chapter 11 dispute with Ethyl before the panel process had been completed.²⁰⁵

3. NAFTA's Chapter 11

Chapter 11 of NAFTA provides rules for the resolution of investor-state disputes through arbitral panels.²⁰⁶ Companies or individuals from a NAFTA country who are investors in another NAFTA country can initiate a claim against the government of the host country if they believe that their rights under specific provisions of Chapter 11 of NAFTA have been breached.²⁰⁷ Chapter 11 does not provide an expansive list of grounds on which an action may be brought, unlike the Chapter 20 state-to-state dispute settlement mechanism where the

201. See Agreement on Technical Barriers to Trade, [hereinafter TBT Agreement] in GATT, *supra* note 24.

202. See *supra* Parts III and IV.

203. See AIT Report, *supra* note 162, at 7-8.

204. See *id.*

205. See *supra* notes 6-9 and accompanying text.

206. See NAFTA *supra* note 167, at ch. 11.

207. See Cheri D. Eklund, *A Primer on the Arbitration of NAFTA Chapter Eleven Investor-State Disputes*, J. INT'L ARB. 141 (1992).

breach of almost any provision is actionable.²⁰⁸ Although a number of cases have been initiated under Chapter 11, to date no other cases have resulted in the establishment of a dispute settlement panel.²⁰⁹

In September 1996, Ethyl filed a \$251-million claim against the Canadian federal government on behalf of its investment in Canada, namely Ethyl Canada Inc.²¹⁰ The Ethyl case went the farthest in the Chapter 11 process of any case to date.²¹¹ A panel was established in late 1997 under the United Nations Commission for International Trade (UNCITRAL) arbitration rules.²¹² The deliberations and results of the panel process "may be made public only with the consent of both parties."²¹³

In July 1998, a settlement was reached outside the panel process and the Canadian government agreed to repeal the ban on MMT and pay Ethyl \$19.3-million (Canadian) in costs and lost profits.²¹⁴ The Canadian government announced that there was no evidence that MMT was harmful to human health in low amounts.²¹⁵ The government further stated that the auto industry failed to make the case that MMT damaged their on-

208. See NAFTA, *supra* note 167, at ch. 20.

209. There are however a number of pending claims. A Chapter 11 complaint was filed with the Mexican Government on October 13, 1997, by Metalclad Inc., a hazardous waste disposal company based in Newport Beach, California. It claims that the state government of San Luis Potos prevented it from establishing a hazardous waste landfill, and it is seeking \$65 million for breach of contract. Another similar case is expected to be filed on behalf of the U.S. owned waste disposal company, Desechos Solidos de Naucalpan de C.V. (DESONA). At a preliminary hearing on September 25, 1997, the owners of DESONA, who are seeking \$17 million in damages, stated that their property was seized by armed agents of the government of the city of Naucalpan. See Matthew Fleischer, *International*, AM. LAW. 92 (Dec. 1997).

210. See *Court Ruling Limits Role of Third Parties in Canada MMT Case*, AM. TRADE, Nov. 13, 1997, at 9.

211. See Ostry & Soloway, *supra* note 1, at A15.

212. See ARBITRATION RULES OF THE UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW (UNCITRAL), adopted by the U.N. General Assembly (Dec. 15, 1976) [hereinafter UNICITRAL ARBITRATION RULES]. The arbitral panel for the case is comprised of three members: presiding over the case is Karl Heinz Bocksteigel, a German professor; the U.S. member is Charles Brower, an international arbitration lawyer located in Washington, D.C.; and the Canadian member is Marc Lalonde, also an international arbitration lawyer and former bureaucrat. See *Court Ruling Limits Role*, *supra* note 210, at 9.

213. UNICITRAL ARBITRATION RULES art. 32(5). This may change, however, the considerable public pressure being imposed on the governments because of the lack of transparency. See Heather Scoffield, *Trade Officials Put NAFTA Secrecy Issues on Agenda*, GLOBE & MAIL, Sept. 26, 1998, at B5.

214. See Shawn McCarthy, *Failed Ban Becomes Selling Point for MMT*, GLOBE & MAIL, July 21, 1998, at A3.

215. See *id.*

board diagnostic systems.²¹⁶ This was a major victory for Ethyl, which now plans to use the repealed ban as a part of their worldwide marketing strategy for MMT.²¹⁷

1. The Chapter 11 Arguments

Prior to the passage of Bill C-29, the stakeholders to the dispute made submissions before the Senate Standing Committee.²¹⁸ This is the only public statement regarding the substantive arguments that would have been before the tribunal.²¹⁹ Ethyl claimed that Bill C-29 was inconsistent with three provisions of NAFTA: "national treatment, performance requirements and NAFTA expropriation provisions."²²⁰ National treatment requires non-discriminatory treatment between foreign and domestic firms.²²¹ Bill C-29 did not explicitly prohibit the sale of Canadian-made MMT, but prohibited its movement. This, however, prevented the sale of foreign-made MMT in Canada.²²² Hypothetically, Ontario held that MMT could be legally produced and sold within the province. However, as previously noted, only one producer – Ethyl – held the patent and produced MMT in North America. Ethyl argued that Bill C-29 violated NAFTA's national treatment provisions, arguing that it "constitutes disguised discrimination aimed at Ethyl Canada and Ethyl Corporation."²²³ Ethyl likewise claimed national treatment provisions were further breached because there was no difference between MMT produced in the provinces or the United States; Bill C-29 could give "an unfair marketing and promotional advantage to investors based in Canada over non-Canadians selling the same product."²²⁴

Under NAFTA Chapter 11, governments are prohibited from imposing performance requirements or imposing additional demands on a firm as a condition of investment in a NAFTA country.²²⁵ Ethyl contended that its subsidiary, Ethyl Canada, was required to purchase Canadian-made MMT in or-

216. *See id.*

217. *See id.*

218. *See* STANDING COMMITTEE, *supra* note 28.

219. *See* Testimony of Barry Appleton, Ethyl's trade counsel (Feb. 19, 1997), *in* STANDING COMMITTEE, *supra* note 28 (on file with the author) [hereinafter Testimony of Barry Appleton].

220. *Id.*

221. *See* NAFTA, *supra* note 167, at art. 1102.

222. *See* Testimony of Barry Appleton, *supra* note 219.

223. *Id.*

224. *Id.*

225. *See* NAFTA, *supra* note 167, at art. 1106.

der to remain in the MMT distribution business.²²⁶ In this way, Bill C-29 imposed performance requirements on Ethyl Canada.²²⁷ It violated the NAFTA prohibition on performance requirements by requiring the purchase of local goods.²²⁸ In order to retain its presence in the Canadian market, it would be required to purchase Canadian-made MMT.²²⁹ As there is no Canadian manufacturer of MMT, Ethyl would have to build manufacturing and blending plants in each province or territory of Canada.²³⁰

Finally, Ethyl argued that Bill C-29 was tantamount to expropriation under NAFTA, in that "ending Ethyl Canada's business is the same as expropriating it, and the NAFTA requires companies to be compensated for their expropriated investments."²³¹ Specifically, Ethyl alleged a loss in value of its manufacturing plant, a decline in future sales, and damage to its corporate reputation.²³²

Arguments were also presented at the Standing Senate Committee on behalf of the Canadian Vehicle Manufacturers Association.²³³ CVMA argued that Bill C-29 was not contrary to NAFTA, as Canada had the sovereign right to pursue the necessary type and degree of environmental protection, including a precautionary stance on MMT.²³⁴ CVMA further contended that concern about the national treatment issue was unfounded for two reasons.²³⁵ First, "Bill C-29 would not have the effect of discriminating in favor of domestic production because there is no domestic production of MMT," and second, the "national treatment rule does not extend to situations where a separate domestic industry such as ethanol might be incidentally benefited."²³⁶ It was further argued that an adverse impact of a bona

226. See Testimony Barry Appleton, *supra* note 219.

227. See *id.*

228. See NAFTA, *supra* note 167, at art. 1106.

229. See Testimony of Barry Appleton, *supra* note 219.

230. See *id.*

231. *Id.*

232. See Michelle Sforza & Mark Valliantos, *The Case with Ethyl - MAI Coming Attractions*, in PREAMBLE CENTRE FOR PUBLIC POLICY BRIEFING PAPER (1997) (on file with author).

233. See Presentation by Ivan Feltham, Q.C. (Feb. 19, 1997), in STANDING COMMITTEE, *supra* note 28 (on file with author) [hereinafter Presentation of Ivan Feltham].

234. See *id.*

235. See *id.*

236. *Id.*

fide regulation does not constitute expropriation under Chapter 11.²³⁷

2. Regulatory Takings²³⁸

The expropriation claim has become particularly contentious. Under NAFTA, the "applicable rules of international law" govern the question of when a regulation becomes compensable for a foreign investor.²³⁹ It is important to note that every regulation can alter the relative costs and opportunities of firms, whether domestic or foreign.²⁴⁰ The Canadian government previously faced the threat of a similar action when United States tobacco companies threatened to challenge a proposed Canadian regulation mandating plain packaging on cigarettes under NAFTA's expropriation provisions.²⁴¹ The Canadian government later abandoned the regulation.²⁴²

Under international law, the majority of cases deal with direct expropriation rather than expropriation through regulatory measures.²⁴³ Evaluating whether this regulation is indeed tantamount to expropriation lies in international takings jurisprudence, to some degree informed by American constitutional law.²⁴⁴ On this issue, international law jurisprudence provides little guidance, as "there does not . . . appear to be any universally agreed set of principles as to when one government action should fall into one category and another in the other."²⁴⁵ Commentators warn that regulations construed as expropriation "could make regulatory reform extremely costly, but is an interpretation of the meaning of expropriation quite common in the

237. See *id.*

238. The following section draws heavily on Ostry & Soloway, *supra* note 1, at A15.

239. See NAFTA, *supra* note 167, at art. 1131.

240. See David Vogel & Alan M. Rugman, *Environmentally Related Trade Disputes Between the United States and Canada*, 27 AM. REV. OF CAN. STUD., 271, 271 (1997).

241. See David Schneiderman, *NAFTA's Takings Rule: American Constitutionalism Comes to Canada*, 46 U. TORONTO L.J. 499, 523-25 (1996).

242. See *id.*

243. See JON R. JOHNSON, *THE NORTH AMERICAN FREE TRADE AGREEMENT: A COMPREHENSIVE GUIDE* 289-90 (1994).

244. See *id.*; Edward M. Graham, *Regulatory Takings, Supernational Treatment and the Multilateral Agreement on Investment: Issues Raised By Nongovernmental Organizations*, CORNELL INT'L L.J. (forthcoming 1998). See also Schneiderman, *supra* note 241, at 12.

245. Evan Atwood & Michael J. Trebilcock, *Public Accountability in an Age of Contracting Out*, 27 CAN. BUS. L.J., at 45 (1996).

U.S. domestic takings jurisprudence."²⁴⁶ In the United States, property rights are constitutionally entrenched, and a significant body of case law discusses the obligations of the government to compensate those adversely affected by its regulations.²⁴⁷ In Canada, however, property rights are not constitutionally entrenched, and the extent of judicial control is far less comprehensive.²⁴⁸

The challenge on the grounds that Bill C-29 was tantamount to expropriation has become a significant source of controversy.²⁴⁹ Environmental and consumer groups view the Ethyl case as a dangerous precedent that could seriously erode the freedom of a country to pass any domestic legislation affecting the property interests of a foreign firm.²⁵⁰ There is concern now that any environmental regulation will become potentially subject to scrutiny, raising important questions about sovereignty.²⁵¹ One commentator even suggested that amendments to NAFTA may be necessary to correct this problem.²⁵² This is ironic when one considers the history of Chapter 11. As *The Economist* noted, "NAFTA's wide-ranging protection for investors was aimed mainly at Mexico, whose legal system Canadian and American negotiators did not trust."²⁵³ Apparently, no one imagined that the text might be wielded by crafty American firms in Canada.²⁵⁴

The Chapter 11 challenge launched a very public grassroots campaign on the part of ENGOs that adversely affected negotiations of the Multilateral Agreement on Investment (MAI), highlighting the uncertainty surrounding the issue of regulatory takings in an international context.²⁵⁵ Those who are "suspi-

246. Robert Howse & Jonathan Feldman, *A Brief Analysis of the MAI*, 6 CAN. WATCH, Mar. 1998, at 33; see Graham, *supra* note 244.

247. See Richard Epstein, TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN 19-31 (1985); Graham, *supra* note 244.

248. See JOHNSON, *supra* note 243, at 290.

249. See *NAFTA- The Sting in Trade's Tail*, ECONOMIST, Apr. 18, 1998, at 70 [hereinafter ECONOMIST].

250. See Friends of the Earth, *Canada Withdraws Environmental Law After NAFTA Challenge* (electronic press release July 20, 1998) <<http://www.igc.org>>.

251. See McCarthy, *Threat of NAFTA Case Kills Canada's MMT Ban*, *supra* note 14, at A1.

252. See Sylvia Ostry, *Looking Back to Look Forward: The Multilateral Trading System After 50 Years* (1998) (unpublished manuscript) (on file with author).

253. ECONOMIST, *supra* note 249, at 70.

254. See *id.*

255. See Madelaine Drohan, *Nations Set to Bury MAI*, GLOBE & MAIL, Apr. 27, 1998, at B1.

cious of big business" view the outcome of this dispute as a *carte blanche* for firms to challenge any environmental regulation on the grounds that firm assets are being expropriated; the same skeptics seek to have comparable provisions taken out of the MAI as it currently stands.²⁵⁶ Ethyl resisted this allegation, stating that the Ethyl case is irrelevant to the debate about the MAI, and that they are "entirely separate issues."²⁵⁷ Jim Hanes of Ethyl Canada wrote:

C-29 is not an environmental law; it is trade legislation. And it was developed as a trade law by a government bowing to pressure from the automobile companies. From both an environmental and health perspective, there is nothing wrong with MMT. Health Canada's rigorous review of MMT reconfirmed earlier conclusions that MMT poses no risk to human health.²⁵⁸

In any event, the retreat of the Canadian government on this issue has the potential to be the hill on which the MAI may die. The precise definition of expropriation was a major issue in the OECD negotiations of the MAI, drafts of which largely adopted the NAFTA language. Graham contended that such investor protection provisions may be bad policy.²⁵⁹ Concerned about a situation where foreign investors are placed in a better position than the nationals of a given country, he wrote:

The effect of the MAI, if the investor protection provisions are interpreted to cover regulatory takings, is to put international investors in a privileged category among all nations. They alone would be in a position to press claims under rules highly favorable to them for compensation for regulatory taking, irrespective of circumstances under which the regulatory actions were to have been taken.²⁶⁰

Any investment agreement negotiated in the World Trade Organization will have to include some form of investor protection.²⁶¹ Thus the institutional challenge is to design an agreement that protects foreign investors while at the same time allowing sufficient scope for governments to function. Had the MMT case proceeded, it could have provided a much needed "test-case" and guidance in shaping new global rules.²⁶²

256. See *ECONOMIST*, *supra* note 249, at 70.

257. *Letter to the Editor from Jim Hanes, Ethyl Canada*, *GLOBE & MAIL*, May 29, 1998, at A18.

258. *Id.*

259. Graham, *supra* note 244.

260. *Id.*

261. See Ostry & Soloway, *supra* note 1, at A15.

262. There are other cases now pending involving U.S. firms in Mexico.

3. Chapter 20

Chapter 20 of NAFTA provides a mechanism for state-to-state dispute settlement.²⁶³ It can be used for “any actual or proposed measure or any other matter that it considers might affect the operation of NAFTA.”²⁶⁴ There is currently no Chapter 20 claim in progress, but in order for a Chapter 20 case to be initiated, the United States Trade Representative (USTR) would have to take up Ethyl’s case against the Canadian Government. Given the position of the Environmental Protection Agency on MMT, it is unlikely that the Clinton administration will take up this issue.²⁶⁵ Although a Chapter 20 panel was never established, Canada’s Department of Foreign Affairs and International Trade argued that Bill C-29 is contrary to NAFTA.²⁶⁶ Concerned about the number of trade irritants between Canada and the United States, the Canadian Minister of International Trade wrote a letter to then Environment Minister Sergio Marchi stating, “Let me stress my department’s belief that Bill [C-29] should not be reintroduced as it could have many adverse implications for Canadian trade, without compensating environmental benefits.”²⁶⁷

In its effort to convince the U.S. government to take up its claim, Ethyl argued that Bill C-29 violated NAFTA in two ways.²⁶⁸ First, the ban on MMT violated NAFTA’s national treatment provisions, for the same reasons as outlined in the Chapter 11 claim.²⁶⁹ Second, although NAFTA recognizes the freedom of parties to adopt measures relating to the protection of the environment, such measures cannot constitute an unnecessary obstacle to trade unless “the demonstrable purpose of the

263. See John Kirton & Julie Soloway, *Assessing NAFTA’s Environmental Effects: Dimensions of a Framework and the NAFTA Regime*, in 1 NAFTA EFFECTS WORKING PAPER SERIES (1996).

264. NAFTA, *supra* note 167, at art. 2006(1).

265. See Interview with Alan Alexandroff, Special Counsel to Ethyl Corp., at Toronto, Ontario (July 9, 1997) (on file with author).

266. See Peter Morton & Alan Toulon, *Eggleton Picks Trade Battles*, FIN. POST, Mar. 6, 1996, at 4 (quoting a letter from Minister of International Trade Art Eggleton to Environment Minister Sergio Marchi).

267. *Id.*

268. Ethyl relied on an analysis done by Gordon Ritchie, Former Deputy Chief Negotiator for the Canada-U.S. Free Trade Agreement and current Chief Executive Officer of Strategico, Inc., a public policy consulting firm. See *U.S. May Challenge Canada via NAFTA in MMT Case*, *supra* note 147, at 3-4.

269. Gordon Ritchie wrote, “[w]e would argue that an outright prohibition against the importation of U.S. produced MMT, while allowing the continued production and sale of MMT within Canada, amounts to a violation of the national treatment obligation.” *Id.*

measure is to achieve a legitimate objective."²⁷⁰ The hypothetical purpose of the legislation was to remove MMT from the Canadian market.²⁷¹ The legislation failed to meet this objective, since MMT could still be produced and sold within Canada.²⁷² Therefore the argument was put forth "that the demonstrable inability of the measure to achieve the desired objective means that there is no 'demonstrable purpose' and should not be saved by this exemption."²⁷³ Had this case proceeded to a Chapter 20 panel, the result would not have been so clear. The panel would have had to grapple with the complex issue of whether the removal of MMT was indeed a legitimate objective.

VI. TRADE POLICY ISSUES

As stated previously, a welfare analysis may indicate government protection where intent is difficult to discern.²⁷⁴ Welfare analysis requires measuring both the increase to domestic welfare and the loss to global welfare of the trade restriction. Measuring the exact benefits of an environmental regulation has obvious difficulties. Most often, the question will be asked in terms of its legitimacy: to what extent is the regulation based on sound scientific principles?

One of the major trade policy issues that arises from the C-29 dispute concerns the interaction between scientific principles and trade policy. To what extent must a country justify its regulation on sound science? Who decides what constitutes sound science? To what extent may a country employ the precautionary principle as a basis by which to regulate?

The widely divergent claims regarding the effects of MMT make it difficult to assess the degree to which it poses a risk to environmental and human health. Even within the federal government, there is no consensus on the effects of MMT.²⁷⁵ The regulation was purportedly drafted because of the alleged negative effects on autos and as a precaution against deleterious effects on human health. Where there is no agreement on the supporting science, there can only be controversy in enacting trade-restricting environmental regulations. This highlights the difficulty facing trade policy today: in a world of limited scien-

270. *Id.*

271. *See id.*

272. *See id.*

273. *Id.*

274. *See supra* notes 25-27 and accompanying text.

275. *See* STANDING COMMITTEE, *supra* note 28.

tific knowledge, how can we make good policy decisions? Scientific data has the initial appeal of being completely objective, while scientific inquiry is actually riddled with value judgments. Scientific risk assessments are by nature uncertain, and even the choice of methodology to conduct a risk assessment requires a normative judgment.²⁷⁶

The requirement that sound science be the minimum standard for regulation poses potential problems in interpretation and application. It seems to imply a "rigorous cause-and-effect nexus between the empirical scientific evidence and the national regulatory measure chosen."²⁷⁷ The existing standard assumes that there exists one objective and correct view of any scientific issue. Science is not a static entity, but an evolving dialogue within various international communities. As one commentator noted, "[i]t is by no means obvious . . . that 'good science' can be defined with precision in the abstract."²⁷⁸ Furthermore, the policy rationale behind many public health measures is precautionary: where there is a small but serious risk, regulators will err on the side of caution.²⁷⁹ For example, in the United States and Canada, lead was removed from gasoline before the harmful effects were substantiated by scientific evidence. More recently, there has been strong controversy over BSE disease in cattle and the extent to which measures can be based on tentative scientific evidence.²⁸⁰ In reference to this issue, *The Economist* recently noted that "[r]esponding to a previously unknown disease brings a dilemma. Over-reaction risks diverting scarce resources from real and soluble problems. Under-reaction risks an epidemic."²⁸¹ The question essentially becomes a value judgment of whether the situation merits precautionary measures.

There is clearly some health risk associated with MMT as a substance. But recall that the auto manufacturers substantiated their health claims on the fact that MMT caused exhaust systems to malfunction, leading to increased air pollution. They did not base their argument on the direct toxic effects of MMT.

276. See Jeremy Fraiberg & Michael J. Trebilcock, *Risk Regulation: Technocratic and Democratic Tools for Regulatory Reform*, MCGILL L.J. (forthcoming 1998); David A. Wirth, *The Role of Science in the Uruguay Round and NAFTA Trade Disciplines*, 27 CORNELL INT'L L.J. 817, 834-35 (1994).

277. Wirth, *supra* note 276, at 826.

278. *Id.* at 827.

279. See RICHARD BLACKHURST ET AL., *TRADE AND SUSTAINABLE DEVELOPMENT: PRINCIPLES* (1994), available at (visited Jan. 18, 1999) <<http://iisd.ca/trade/pubs.htm>>.

280. See *Coping with BSE*, *ECONOMIST*, Mar. 14, 1998, at 15.

281. *Id.*

The federal government has similarly justified its actions under its power to regulate trade, not its capacity to protect human health. This point is significant because the precautionary principle would operate only to exclude the use of a potentially harmful toxin. Reliance on the precautionary principle would be a more difficult case to make where a general reduction in air pollution was sought, one of the objectives of the federal government.

Not knowing the risks of MMT makes it extremely difficult to evaluate the environmental efficacy of the measure. It is not at all clear that ethanol is the superior additive from an environmental standpoint. Although ethanol emissions are arguably less polluting, a more accurate test of environmental effectiveness would entail a life-cycle analysis which assesses environmental impact from start to finish. David Vogel observes that there are no perfectly clean burning fuels; all engines that burn fuels produce by-products that harm the environment, and United States data do not clearly support ethanol as a clean-burning fuel.²⁸² The environmental case for ethanol is further eroded when the environmental effects of its production are considered.²⁸³ Corn is an energy-intensive crop to grow and transform into alcohol.²⁸⁴ Vogel notes that the production of ethanol may actually consume more energy than it generates, making it an energy-inefficient choice.²⁸⁵ Ethanol also contains less energy than gasoline, so automobiles require more of it to produce the same output.²⁸⁶

The benefits of the regulation need to be balanced against the costs. How expensive will the ban actually be? There will be costs to the refineries for capital change and the ongoing expenses associated with the ban. This will ultimately result in increased costs to the consumer. The consumer will also pay for the more expensive MMT substitutes. What effect will this have on the majority of the population that relies on autos for transportation? What effect will this have on the transportation industry and all of the industries that rely on it?

A more troubling concern arises from the subsidy and protection given to the ethanol industry. Many economists view subsidies and protection as business environments where firm

282. Vogel, *supra* note 11, at 111-12.

283. *See id.* at 113.

284. *See id.*

285. *Id.*

286. *See id.*

inefficiencies flourish.²⁸⁷ Such policies allow a relatively small number of well-organized and well-financed individuals that represent specific industry interests to gain at the expense of the broader consumer welfare. What cost does this represent to the Canadian taxpayer? Could this be a farm welfare program in disguise? To what extent have competitive distortions been introduced into the agricultural marketplace and its secondary markets such as feedgrains for livestock? Concerns are also raised about those industries displaced by a growing corn industry, such as soybeans. Vogel makes the case that, in the United States, subsidies to the ethanol industry have had a net welfare-reducing impact.²⁸⁸ Questions are raised about whether trade restrictions are an efficient means to subsidize farmers. Yet automakers claim that they cannot meet environmental standards set by the federal government without this ban and will not be able to make warranty claims. Perhaps a broader conception of environmental friendliness should be undertaken beyond strictly air quality to maximize domestic social welfare objectives.

VII. CONCLUSION

The fuel additives issue has become a Byzantine structure of business interests, environmental coalitions, and political maneuvering. In this case, a complex "Baptist-Bootlegger" coalition has been created. The environmental and consumer advocacy groups are working in what they perceive to be the public interest, believing that MMT is harmful to the environment and human health. They are joined by two bootleggers: the ethanol producers and the auto manufacturers. The ethanol producers are the more obvious bootleggers, having undertaken lobbying efforts to have MMT banned. They are heavily subsidized by the Canadian government and have a wealth-maximization agenda.²⁸⁹ The ethanol producers, however, are minuscule compared to the size and power of the auto manufacturers, who stand to gain or lose a great deal depending on the fate of MMT. Yet it may be unfair to cast the auto industry as a bootlegger, since it is responding to the increasingly strict demands on the part of consumers and government to develop cleaner technologies. In this way, the auto manufacturers are only partially

287. See generally RUGMAN & VERBEKE, *supra* note 110 (discussing the relationship between trade policy and corporate strategies).

288. Vogel, *supra* note 11, at 116-17.

289. See Interview with Jim Johnson, *supra* note 103.

cloaking themselves in the public interest agenda ascribed to them. The more subtle point is that the auto manufacturers are attempting to shift the burden of cleaner technologies to the oil producers through this regulation.

The existence of a Baptist-Bootlegger coalition offers only a prima facie indication of whether an environmental regulation is being used for protectionist ends. Here, a coalition exists between environmental and consumer groups and the two industries that actively lobbied for the passage of this regulation. The fact that the Canadian government settled the Chapter 11 dispute with Ethyl before the case was heard may indicate that the regulation was more about industrial policy than environmental policy. But given the range of explanations offered by the Canadian government, the intent behind the regulation is not readily discernible.

Beyond the intent of the government, it is helpful to perform a welfare analysis of the impugned regulation, asking if the cost in terms of losses to global welfare significantly outweighed the benefits. The scientific community is divided as to the health effects of MMT, and there are alternative measures that are less trade-restrictive. There is also a strong indication that the ban on MMT had an overall negative impact on consumer welfare. Given the evidence presented, it appears that this regulation was more about the pursuit of a North American-wide fuel standard than environmental and human health effects.

