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Memo

From: Todd Tucker, Public Citizen[1]
To: Climate Campaigners and Trade Campaigners
Date: July 20, 2012
Re: Trade Pacts Threaten Effective Use of Clean Air Act to Regulate Greenhouse Gases

With the stagnation of international negotiations and U.S. legislative means of addressing the climate challenge, climate campaigners have turned to existing regulatory alternatives for achieving reductions in greenhouse gas (GhG) emissions. The primary alternatives for regulating U.S. greenhouse gases are the Clean Air Act (CAA), a 2007 renewable fuels standard, various state-level initiatives like the Regional Greenhouse Gas Initiative (RGGI) and California's AB 32.

Many corporations strongly dislike the CAA and its associated state implementation plans (SIPs), but the constitutionality and applicability of the Act to GhGs stand on a strong legal foundation. In contrast, the deference that U.S. courts have shown to the regulators and legislators that have crafted the CAA is unlikely to be repeated internationally. Indeed, as shown in this memo, the rules and procedures of the World Trade Organization (WTO), free trade agreements (FTAs) and bilateral investment agreements (BITs) are substantially less deferential than their domestic counterparts to the environment and domestic rule-making norms. International trade agreement attacks are far from a hypothetical threat, given that the CAA has been successfully attacked at the WTO in the past, and corporations are now pushing for a WTO attack on the EU Aviation Directive.

The purpose of this memo is to inform climate advocates of the actions needed to ensure that international trade agreement terms do not undermine use of the CAA for regulating greenhouse gases. The Act seems to be the most appropriate, or at least the best available, tool currently on hand. It is also to inform trade campaigners about the implications of their efforts for the climate policy debates. We hope to show that climate campaigners have a concrete and immediate interest in the sphere of international trade and investment agreement policymaking, and that changes to this current model of rules is necessary to tackle the complex challenges presented by climate change. The memo does not attempt to provide specific legal analysis of grounds for a CAA conflict with trade agreement obligations, but rather a broader survey of areas of potential conflict.

This matter has taken on special importance with the emergence of the Trans-Pacific Partnership (TPP) – a regional trade deal that the Obama administration is negotiating between 11 Western Hemisphere and Asian economies. The deal could eventually incorporate major GhG emitters like China. Because the TPP as drafted would provide foreign governments *and investors* with

controversial new rights to challenge the CAA and other domestic measures aimed at reducing GhGs, climate campaigners have a special interest in getting the prospective TPP right.

Given most readers of this memo will likely have expertise on one or the other policy area, but not both, the first section of this memo briefly outlines the relevant trade rules, and the second section does the same for the CAA's application to GhGs. The third section looks at how specific trade rules could conflict with the CAA. The final section offers certain policy and tactical conclusions. Appendix I details the new CAA rules on cars and trucks, while Appendix II provides a summary of the WTO attack on the Clean Air Act.

I. International trade and investment in a capsule

The WTO came into being on January 1, 1995, at the conclusion of the Uruguay Round of trade talks (1986-1994). This new body administered its predecessor, the 1947 General Agreement on Tariffs and Trade (GATT), along with 16 other agreements. Among the primary differences between the earlier GATT regime and the WTO is that the latter has a binding system of dispute settlement (where trade sanctions can be authorized for violation of WTO rules), and an application to a much wider field of economic activities. While the GATT primarily applied to tariffs, quotas and other traditional trade policy instruments, the WTO also administers agreements related to services (the General Agreement on Trade in Services, or GATS), and consumer labeling and product specifications and requirements (the Agreement on Technical Barriers to Trade, or TBT), among others.

Agreements like GATT and GATS feature "general exceptions" that can be invoked by a respondent country as a defense when another WTO member attacks its environmental laws. However, WTO panels have hardly ever allowed these exceptions to excuse a country's WTO rule violations, and agreements like the TBT do not even have these defenses to begin with.

These new agreements were of grave concern to many environmental and consumer advocates, who saw them as new ways for corporations to push for attacks on cherished regulations.[2] Time has largely borne out these concerns, as WTO rules have been used to attack tobacco regulations, dolphin protections, endangered species protection, and (importantly for this memo) Clean Air Act rules. (One of the final cases under the WTO's predecessor organization was against measures related to U.S. CAFE standards.)

Different trade agreements are powerful in different ways, but all generally require that federal, state and sometimes local laws conform to the obligations of the agreements.[3] Unlike in domestic law, the federal government must ensure consistent compliance across agencies and levels of government.[4] The WTO is particularly powerful because most of the world's countries are members. As a consequence, WTO dispute settlement decisions are treated as deeply authoritative. At the same time, the Reagan, Bush I, Clinton and Bush II administrations pushed for more draconian (or what would later be called "WTO-plus") rules in a series of bilateral trade and investment agreements.

The U.S. government has signed FTAs or BITs with 54 nations.[5] The first BITs were finalized in the late 1980s with African nations, while the early 1990s saw the emergence of FTAs with

major trading partners like Canada and Mexico (through the North American Free Trade Agreement, or NAFTA) and new BITs with Argentina, Ecuador and others. Currently, the Obama administration is proposing expansion of these rules to additional countries through the 11-nation Trans-Pacific Partnership (TPP) and through BITs with China and India. The TPP, unlike past bilateral and regional trade deals, is designed as a "docking agreement" that additional countries can sign onto. Consequently, it will likely provide *the template* for trade deals for decades to come.

FTAs and BITs provide sweeping new rights and powers to private foreign investors and corporations. While new obligations are imposed on host governments to provide foreign investors such new privileges, few if any social or environmental obligations are required of the investors. These pacts also empower foreign investors to bypass domestic courts and sue governments for cash damages in international tribunals. These claims can be brought over alleged violations of these new rights, including the right to demand compensation for domestic policies that they claim reduce the value of their investments. These cases are heard before UN and World Bank tribunals staffed by private sector attorneys, who often rotate between serving as "judges" and bringing cases for corporations. The scope of non-discriminatory domestic policies that are exposed to such attacks is vast, including health and land use policies, government procurement decisions, regulatory permits, intellectual property rights, regulation of financial instruments such as derivatives, and more. We know from the leaked TPP text investment text that it largely replicates this template.

The original goal of such international investment rules was to provide a means for foreign investors to obtain compensation if a host government expropriated their plant or land, and the domestic court system could not provide a means for fair compensation. However, over time, both the rules and their interpretation have been dramatically expanded. As a result, these rules are now establishing an alarming two-track system of justice that privileges foreign corporations in all sorts of ways relative to governments or domestic businesses.

Corporations' use of the investor-state regime has increased exponentially. Investment treaties with such enforcement mechanisms have existed since the 1950s. Yet, by 1999, only 69 cases had ever been filed at the International Centre for the Settlement of Investment Disputes (ICSID) – the World Bank body listed as a venue for investor cases in the leaked text. Now ICSID's cumulative case load is over 385 – an increase of 460 percent over the last 13 years. And ICSID is only one venue for such cases. Over $730 million has been paid out under U.S. pacts alone – 70 percent which are from challenges to natural resource and environmental policies, not traditional expropriations. Tobacco firms are using the regime to challenge tobacco control policies, including a case by Phillip Morris against Australia. Absent substantial changes to the leaked text, the TPP would greatly increase the risk of investor-state attacks on public interest policies like the CAA and would expose governments to massive new financial liabilities.

What explains this rise in cases? As one legal expert has noted, "the adjudicators lack well-known safeguards of judicial independence (e.g. secure tenure, objective method of appointment to cases)… the system can and should do much more to protect itself and the arbitrators from various reasons to suspect bias in the decision-making process."[6] Indeed, the system appears to have a built in incentive to hear more cases, as arbitrators are paid by the hour.

II. The Clean Air Act in a capsule

The CAA is one of the most complex U.S. regulatory schemes, and includes an interlocking set of authorities. Its statute covers 293 pages of text, while its associated regulations cover many times that. It has spawned reams of litigation, and many corporations (and politicians friendly to them) strongly resent its strictures. Compared with more recent regulatory schemes, the Act embodies the precautionary principle and limits the extent to which cost considerations are balanced against environmental and public health outcomes.[7]

The Act creates a statutory obligation on the Environmental Protection Agency (EPA) to protect public health and welfare. The principle distinction in the CAA is between mobile and stationary sources of emissions. The mobile source provisions, in addition to covering fuels, require EPA to set emission standards for automobiles, heavy-duty vehicles and certain non-road vehicles such as aircraft.[8] Regulation of stationary sources, defined as "any building, structure, facility, or installation which emits or may emit any air pollutant,"[9] focuses on industrial facilities such as coal-fired power plants.

Mobile Sources

In the 2007 *Massachusetts v. EPA* decision, the Supreme Court determined that GhGs were air pollutants as defined in the CAA, and required the EPA to make a determination as to whether or not emissions from automobiles endangered public health and welfare.[10] The six GhGs are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. The EPA has taken several steps subsequent to the *Massachusetts v. EPA* case.

- Under Administrator Lisa Jackson, the EPA made the requisite "endangerment and cause and contribute findings" for mobile sources on December 15, 2009.[11]
- This triggered a CAA Section 202 requirement that "The Administrator shall by regulation prescribe… standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare."[12] As a U.S. court recently wrote, "By employing the verb 'shall,' Congress vested a non-discretionary duty in EPA."[13]
- Accordingly, on May 7, 2010, EPA and the National Highway Traffic Safety Administration (NHTSA) published joint GhG emission standards and fuel economy standards for light-duty vehicles for model years through 2016 that took effect on January 2, 2011.[14] Automakers must achieve a combined average emission level of 250 grams of carbon dioxide per mile (g CO_2/mi) by 2016.[15] The agencies estimate the MY 2012-2016 LDV Rule will result in approximately 960 million metric tons of total CO_2e emissions reductions, approximately 1.8 billion barrels of oil savings, and only cost the average consumer an additional $1000 for a MY 2016 vehicle.[16] On December 1, 2011, proposed emissions standards for subsequent model years through 2025 were published.[17] Collectively, these are sometimes called the "Tailpipe Rule."

- On September 15, 2011, EPA and NHTSA published the Heavy Duty National Program for larger road vehicles (i.e. "Trucks Rule").[18] In addition to reducing GhG emissions and fuel consumption[19], the agencies intend that the "program […] enhance American competitiveness and job creation, benefit consumers and businesses by reducing costs for transporting goods, and spur growth in the clean energy sector."[20]
- On June 26, 2012, the Court of Appeals for the D.C. Circuit (which had heard the *Massachusetts v. EPA* case before the Supreme Court granted certiorari) upheld the Tailpipe Rule.[21]
- Additionally, the Center for Biological Diversity (CBD), Center for Food Safety, Friends of the Earth, International Center for Technology Assessment, and Oceana have petitioned EPA in 2007 and 2008 to use its CAA authority to craft GhG regulations from "non-road" engines, ships and aircraft.[22] When the EPA failed to offer a substantive response to petitions regarding ships and aircraft, petitioners brought suit in June 2010 to compel a response.[23] The U.S. District Court for the District of Columbia ruled in July 2011 that the use of the word "shall" in the relevant portion of the CAA indicates that EPA will have to make an endangerment finding for aircraft emissions within a reasonable timeframe.[24]
- Finally, the state of California is granted special dispensation under U.S. law to set its own motor vehicle emissions standards. Other states may also adopt the "California standards." On June 30, 2009, EPA granted California a waiver to set its own motor vehicle GhG emissions standards.[25]

See Appendix I for more description of the Tailpipe Rule.

Stationary Sources

The CAA contains several programs that EPA could use to regulate GhGs from stationary sources: National Ambient Air Quality Standards (NAAQS, Sections 108-110), international emissions regulations (Section 115), New Source Performance Standards (NSPS, Section 111), the New Source Review / Prevention of Significant Deterioration construction permitting programs (NSR/PSD), and the Title V operating permit program.

Broadly speaking, NAAQS establishes EPA's definition of clean air, and sets standards for pollutants (which affect all sorts of emitters). Alternatively, NSPS sets standards for emitters (which may produce one or more pollutants). There are currently six NAAQS "criteria pollutants": ozone, particulate matter (PM_{10} and $PM_{2.5}$), sulfur dioxide, carbon monoxide, nitrogen dioxide, and lead. By comparison, there are over 70 designated source categories under the NSPS.[26] Once a NAAQS has been set, regions of the country are defined as being in attainment or non-attainment of the standard. States must then submit to EPA plans for maintaining air quality in areas that are in attainment, and/or for eventually meeting the standard for areas not meeting the standard.

EPA has taken various steps to regulate stationary sources of GhG emissions:

- EPA has long held that PSD and Title V permits are required for all "major stationary sources," defined in turn as a source that meets three requirements: it 1) emits major amounts of 2) any air pollutant 3) regulated under the CAA.

    - As to the first plank, "major" is defined as any emitter of more than 100 or 250 tons per year (tpy) of a pollutant.
    - As to the second plank, EPA elaborated that "*any* pollutant" meant "both criteria pollutants, for which national ambient air quality standards have been promulgated, and non-criteria pollutants subject to regulation under the Act… EPA requires PSD permits for stationary sources that 1) are located in an area designated as attainment or unclassifiable for any NAAQS pollutant, and 2) emit 100/250 tpy of any regulated air pollutant, regardless of whether that pollutant is itself a NAAQS pollutant." Because no NAAQS has been set for GhGs, the regions of the U.S. are "unclassifiable" as being in attainment or non-attainment, so the PSD requirement to install the "best available control technology" (BACT) for stationary sources was triggered.[27]
    - As to the third plank, EPA maintains that a pollutant becomes "subject to regulation" under CAA only when an EPA regulation for that pollutant goes into effect. Thus, when the Tailpipe Rule went into effect on January 2, 2011, GhGs were formally regulated, which triggered the PSD and Title V permitting requirements for major stationary sources.[28]
- In mid-2010, EPA issued the controversial "tailoring rule,"[29] which changed statutory emissions limits for CAA permitting purposes. Under the "tailoring rule" PSD applies to new sources that emit (or have the potential to emit) between 50,000 and 100,000 tons of GhGs per year. EPA expects this will apply to 15,500 sources, including landfills and coal-powered plants, which account for ~70 percent of U.S. GhG emissions.[30]
- On June 26, 2012, the Court of Appeals for the D.C. Circuit upheld the PSD requirement, and found that the petitioners had botched their legal brief by failing to address their Title V claim.[31]

Beyond these two more substantial steps, EPA has announced (or been petitioned to take) preliminary steps in other areas.

- In September 2009, the Humane Society and other groups petitioned EPA to designate concentrated animal feeding operations as a major stationary source, and regulate methane accordingly.[32]
- In December 2009, CBD and 350.org petitioned the EPA to issue a NAAQS for GhGs.[33]
- In June 2010, CBD, Sierra Club, Environmental Integrity Project and WildEarth Guardians petitioned EPA to designate coal mines as a major stationary source, and promulgate an NSPS for GhGs associated with new and modified coal mining operations, and for methane with respect to existing coal mines.[34]
- In July 2011, EPA adopted an exemption for three years from PSD permitting requirements for carbon dioxide emissions resulting from combustion of biomass and other "biogenic" items – an expansive category that includes many forest industry products.[35] CBD and other environmental groups have challenged this exemption as an abuse of discretion.[36]
- In an August 2011 review of the natural gas production, transmission and distribution sub-sector of the "Oil and Gas Sector," EPA chose not to include an NSPS for methane.[37]
- On December 9, 2011, the U.S. Court of Appeals for the D.C. Circuit ruled that EPA had not violated the CAA by failing to include a GhG standard when it promulgated an NSPS for

Portland cement. The court noted that the EPA claimed to be working on developing such a standard.[38]

- On April 13, 2012, EPA published a proposed NSPS for carbon dioxide for new electric generating units (a.k.a. EGUs or power plants).[39] These were promulgated pursuant to a legal settlement between EPA and the state of New York, which also envisions a similar requirement for oil refineries by November 2012.[40]
- CBD reports that EPA has failed to aggressively pursue GhG reduction measures in many of the industry permits it oversees.[41]

What Path Forward?

There has been a live debate in the U.S. about the wisdom of utilizing the CAA to regulate GhGs. As the four dissenting justices in *Massachusetts v. EPA* argued, those impatient with the pace of U.S. response to climate change should seek redress in the political branches – not the courts. Moreover, because global warming affects the world at large, the conservative judges cast doubt on whether EPA action or non-action could actually cause a particularized injury – a key standing requirement. Similarly, they argue it is difficult to show that EPA causes or could redress that injury. Accordingly, in the name of judicial restraint, the Supreme Court should have denied standing to Massachusetts and other petitioners. The Bush II-era EPA argued in the case that unilateral action on GhGs under the CAA could also undermine U.S. negotiating leverage in getting to a global deal. The conservative justices cited this argument favorably, arguing that courts should show deference to regulators that choose *not* to regulate. EPA was reasonable in so refusing, goes the argument, because "air pollution" typically refers to the atmosphere near the earth – not higher up, as with GhGs.[42]

There is also a debate among climate campaigners about which CAA program would be best suited (or least poorly suited) to regulate GhGs. At core, these differences are about which of the CAA programs would be quickest and most insulated from congressional or judicial challenge.

Resources for the Future has articulated a preference for an NSPS approach. They argue that the program is established, that it is quicker than the NAAQS, and that it empowers states. They also contend that emissions trading scheme are preferable and possible under NSPS, as are other regulations that are flexible and can consider costs. They contrast this with the NAAQS program, in which – under a Justice Scalia-authored Supreme Court decision from 2001 – the federal government is not allowed to consider the costs of regulating.[43]

Meanwhile, CBD has argued in favor of an NAAQS approach:

> "…the key advantage and real power of a greenhouse gas NAAQS is that the law requires this standard to be based on science and grounded in physical reality. Air quality criteria for climate-forcing air pollutants would have to reflect the latest scientific knowledge. Consistent with this scientific focus, maximum concentrations of greenhouse gases could not exceed a level requisite to protect public health and welfare from dangerous climate change. Once a standard is adopted, both federal and state governments would be required to engage in concerted action and use all of the regulatory, policy, and planning tools at their disposal to move toward attainment.

> Standards based on rigorous and peer-reviewed scientific analysis are much more likely than those based on short-term political considerations to provide the pollution reductions needed to solve the climate crisis."[44]

CBD also argues that the NAAQS program is advantageous because regulators and industry already know how it works. The group further maintains that NAAQS is superior because it can promote federal uniformity, while also allowing states to move forward with their own programs to promote policy competition and innovation.

Against the argument for a NAAQS, others argue that the program's exclusivity would limit regulators' ability to use other tools like NSPS. CBD has responded, to the contrary, that there is no exclusivity between regulating emitters of pollutants under NSPS and regulating pollutants of emitters under NAAQS, although the group acknowledges the issue has not been tested.[45]

Others have noted that it would likely be impossible for individual U.S. states to achieve meaningful reductions of a globally well-mixed pollutant like GhGs. CBD has responded to this criticism by noting that the powerful array of regulatory tools under the NAAQS, and the requirement that SIPs be revised and re-revised until they meet their targets, indicate that NSPS are particularly potent and capable of being adapted to meet these goals.[46]

As to the global collective action problem, CBD suggests that the international emissions provisions of the CAA could allow a coordination device, and that the SIPs could be tailored so that each state contributes towards its share of whatever target the U.S. helps set in the international negotiation process. This program (under Section 115 of the CAA) allows revisions to SIPs (once an endangerment finding is triggered by a State Department or international agency finding) so that pollution from a U.S. state that affects another country can be "prevented or eliminated." As Resources for the Future has written,

> "The problem with such sweeping regulation under section 115 is that it may not be legal. Courts usually take a dim view of attempts by agencies to use short, vague statutory language to justify sweeping regulatory changes. As Justice Scalia has put it, 'Congress does not… hide *elephants* in *mouseholes*.' Such broad regulation of GhG emissions under section 115 (indeed, any GhG regulation) is highly likely to be challenged in the courts."[47]

III. GhGs under trade deals

Climate campaigners have extensive experience with U.S. courts' treatment of the CAA, which industry groups have attacked on numerous occasions. Industry and others have asked whether congressional mandates from the 1970s or even 1990 could reasonably be construed to apply to the wide range of GhG emitters, instead of the (relatively) scarce number of emitters of "traditional" CAA pollutants. Others have asked whether (in light of the tough automatic triggers and the apparent lack of room for the EPA to conduct full cost-benefit analyses for all of its programs) the CAA represents an unconstitutional delegation of legislative power by Congress to the executive branch. Still others have questioned specific EPA decisions or fact-finding

approaches, or whether SIPs unduly burden inter-state commerce. Congressional Republicans have questioned whether the CAA should even apply to GhGs.

By and large, these efforts have not been successful in courts. U.S. judges have often looked at the plain and broad language of the CAA's text (that is applies to "any air pollutant", that certain regulations are triggered mandatorily and are not subject to significant agency discretion) and deemed that EPA's CAA regulations were consistent with congressional intent. Constitutional claims against CAA-related measures have been largely (if not wholly) unsuccessful.

But, walk away from the comfortable and known rules and procedures of domestic law, and imagine a different world where a "constitution" was written by laissez faire ideologues, instead of founding fathers concerned with the sustainability and accountability of institutions. Imagine a system where judges are often rewarded for applying this "positive law" in an unyielding fashion, or to utilize margins of discretion against regulators or contrary to congressional intent.

This world encapsulates, in a nutshell, the WTO's Dispute Settlement Body (DSB) and the system of privately adjudicated arbitration and dispute settlement under FTAs and BITs. Many trade law experts believe that current WTO rules pose serious constraints on how nations may respond to climate change.[48] For instance, Mitsuo Matsushita, a member of the WTO tribunal that ruled against a CAA-related measure in the WTO's first dispute resolution case in 1996, notes that by signing the WTO, governments have already empowered the WTO to "allow Member Nations to challenge almost any measure to reduce greenhouse gas emissions enacted by any other Member."[49]

Below, the memo will address some of the major legal norms (national treatment, market access, international standards, fair and equitable treatment, and indirect expropriation) under which the CAA could be found to violate pact trade rules. The memo also examines the weaknesses and problems posed by various "exceptions" available under trade law. The memo focuses on four areas of trade law—three WTO agreements (the GATT, TBT and GATS) and core provisions of investment chapters in U.S. BITs and FTAs.

Goods v. Technical Regulations v. Services v. Investments

The wide range of different trade disciplines can create confusion as to what type of policy can fall under which agreement. The notion of a "good" is perhaps the easiest to understand: it will have tariff classifications, physical properties, and end uses.

A "technical regulation" in turn, is defined as a document "which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method." (TBT Annex I(1)). The TBT distinguishes between "technical regulations" and "technical standards." The most significant difference between the two is that the former are mandatory and subject to more extensive WTO disciplines than are the latter.[50] The Truck and Tailpipe Rules would likely qualify as a "technical

regulation." "Cars" will have to meet certain pre-prescribed characteristics (i.e. include engines of a certain efficiency).

Moreover, "technical regulations" may apply to products as they move through supply chains. Say a consumer label is affixed at the packaging or retail stage, but that upstream suppliers are required to keep documentation to help ensure the veracity of the ultimate labeling claim by the retailer. In such a case, a complainant can bring a case on behalf of its upstream producers, claiming that the "technical regulation" "applies" to the upstream inputs and products in a TBT-inconsistent fashion.[51] In the CAA context, this means that a Tailpipe Rule specifying certain engine standards for "cars" could be evaluated by a WTO panel for its implications for engine and parts manufacturers. Arguably, an NSPS that set certain standards for stationary emitters that use boilers could be evaluated for its upstream impact on boiler makers.

(Mexico recently challenged the U.S. dolphin-safe tuna labels, claiming that these were mandatory – despite the fact that tuna companies can sell tuna with or without the label. The U.S. has maintained that a labeling regime that allowed companies to choose to comply with it or not was voluntary and thus a technical standard. But the AB concluded that anytime a government has any role in a labeling scheme (even to simply ensure the veracity of claims), it qualifies as mandatory.[52])

Services are colloquially described as "anything you can't drop on your foot," and service suppliers are entities that provide these services through a given "mode of supply": 1) cross-border trade (i.e. a company based in Country B provides services via Internet or post to a consumer located in Country A); 2) consumption abroad (i.e. a consumer from Country A goes to Country B); 3) establishment in the country (a Country B company sets up a subsidiary in Country A); or 4) through movement of persons from Country B to Country A. Indeed, the WTO and UN have both published extensive typologies (the W/120 and the UN Central Production Classification (CPC), respectively) of hundreds of different types of services and subsectors. Countries make service commitments pursuant to standard scheduling protocols.[53]

The U.S. has extensive GATS commitments in areas pertinent to the CAA: Services Incidental to Mining (CPC 883+5115);[54] Services incidental to energy distribution;[55] Construction and Related Engineering Services; Maintenance & Repair of Equipment (except maritime vessels, aircraft, and other transport equipment) *(*CPC 633, 8861-8866); wholesale trading services (including of solid, liquid, and gaseous fuels and related products *(*CPC 62271); retail services (including of fuel oil, bottled gas, coal, and woods *(*CPC 63297)); and Services to reduce exhaust gases and other emissions to improve air quality (CPC 9404).[56] The U.S. is also proposing new commitments in pipeline transport services.[57] Gas occupies an in-between space between being a "good" and being a "service," while there is a concerted effort in the WTO to bring many aspects of oil under the GATS as well.[58]

FTAs and BITs typically allows investor-state panels to hear disputes related to "covered investments," which are defined broadly in the following manner: "investment means every asset that an investor owns or controls, directly or indirectly, that has the characteristics of an investment, including such characteristics as the commitment of capital or other resources, *the expectation of gain or profit,* or the assumption of risk. Forms that an investment may take

include: (a) an enterprise; (b) shares, stock, and other forms of equity participation in an enterprise; (c) bonds, debentures, other debt instruments, and loans; (d) futures, options, and other derivatives; (e) turnkey, construction, management, production, concession, revenue-sharing, and other similar contracts; (f) intellectual property rights; (g) licenses, authorizations, permits, and similar rights conferred pursuant to domestic law; and (h) other tangible or intangible, movable or immovable property, and related property rights, such as leases, mortgages, liens, and pledges…" [italics added].[59] As the italicized portion makes clear, interests like "the expectation of gain or profit" can suffice as a characteristic of a covered investment.

Newer FTAs also allow investor-state panels to hear disputes related to "investment agreements," defined as: "a written agreement between a national authority of a Party and a covered investment or an investor of another Party, on which the covered investment or the investor relies in establishing or acquiring a covered investment other than the written agreement itself, that grants rights to the covered investment or investor: (a) with respect to natural resources that a national authority controls, such as for their exploration, extraction, refining, transportation, distribution, or sale; (b) to supply services to the public on behalf of the Party, such as power generation or distribution, water treatment or distribution, or telecommunications; or (c) to undertake infrastructure projects, such as the construction of roads, bridges, canals, dams, or pipelines, that are not for the exclusive or predominant use and benefit of the government…"[60] The U.S. alone is pushing to include "investment agreements" in the scope of the TPP.

The Toyota or Hyundai plants in the U.S. South would certainly count as "investments," as could foreign-owned producers of coal or chemicals that might be regulated for their GhG emissions under the CAA. Likewise, electric utility or bridge construction contracts with local or federal governments could be "investment agreements." New GhG emissions standards, or new technology requirements in permits, could all constitute measures reviewable under the investment provisions of BITs and FTAs.

As the foregoing discussion should make clear, a given CAA program could simultaneously affect goods, services and investments, and constitute a technical regulation. For instance, the Trucks Rule (technical regulation) will set mandatory standards for certain engines (goods), which will in turn affect engineers that design those engines (services). Simultaneously, foreign car companies and engineering companies that have made investments in the U.S. will be affected. If coal mines and CAFOs are designated as "major stationary sources" under the NSPS and permitting provisions, then foreign companies would see their investments affected. Likewise, the services those companies provide or consume would also be affected by the NSPS.

National Treatment

The CAA creates multilayered typologies between places and entities: Mobile emitters like cars face different requirements than stationary ones like smokestacks. Small cars face different requirements than large trucks. Ship GhG emissions aren't regulated, but truck emissions now are. Entities in geographic regions that have attained NAAQS face different requirements than those in sub-achieving regions. The list goes on.

These distinctions, while often (if not always) justified on policy grounds, offer many bases for alleging discriminatory treatment. U.S. plaintiffs would have very limited bases for challenging the federal CAA as unconstitutional or as illegal discrimination, and even alleged state-level discrimination under a SIP or autonomous initiative may be upheld if its local benefits outweigh the costs imposed on interstate commerce. (In any case, most aspects of SIP would probably be held as being implemented pursuant to federal mandates, so would avoid dormant commerce clause scrutiny.) Absent a constitutional violation, plaintiffs have to rely on Administrative Procedure Act-style standards of review, which holds that agency actions will be upheld by courts if they are not arbitrary, capricious or otherwise inconsistent with the law.

Each of the four trade agreements analyzed in this memo allow for attacks that would not be possible under domestic law, especially as regards federal measures.

Generally speaking, a national treatment violation can occur when a country has made a relevant commitment in a good or service sector, has undertaken or introduced a measure "affecting trade", and that measure accords "less favourable treatment" to foreign goods, services or suppliers relative to like domestic services or suppliers.

As the Appellate Body (AB) in *EC – Bananas III* noted: "[T]he term of 'affecting' reflects the intent of the drafters to give a broad reach … The ordinary meaning of the word 'affecting' implies a measure that has 'an effect on', which indicates a broad scope of application. This interpretation is further reinforced by the conclusions of previous panels that the term 'affecting' in the context of Article III of the GATT is wider in scope than such terms as 'regulating' or 'governing'."[61] Thus, a CAA measure could be challenged for its impact on sectors other than the sector (say coal mines) it is formally regulating, such as if it raised the costs to securities dealers or gas terminal operators.[62]

Likewise, "likeness" is a particularly elastic concept. For goods trade, the WTO has traditionally utilized the four-plank *Border Tax Adjustments* criteria (similar physical properties, end uses, tariff preferences, and consumer preferences) as the criteria for establishing likeness under the TBT. The focus of a WTO analysis is not on the costs of regulating them, but rather "on the competitive relationship between and among the products,"[63] which is defined in the marketplace.[64] On the consumer preferences criteria, the importance is that an imported and a domestic product *can* be substituted by the aggregate of consumers in the market, not that specific segments of the market actually *do* substitute one for the other.[65]

The U.S. has consistently argued – from the first WTO ruling against it[66] to the most recent[67] – that differences in treatment can be justified on the basis of the difficulty of regulating foreign goods or services outside of U.S. national jurisdiction, or because of calibration of regulatory costs to benefits. Similar products or services that are situated differently, the U.S. theory follows, may not always be "like" products or services for purposes of discrimination analysis. The AB has rejected that argument, stating that "a panel that is tasked with determining whether two products are like may not be able to reach a coherent result if, in determining likeness, it has to rely on various possible regulatory objectives of the measure."[68]

"Less favorable treatment" (LFT) can be "formally different or formally identical treatment which modifies the conditions of competition in favour of domestic" goods, services and service suppliers."[69] It can be *de jure* or *de facto,*[70] and need not have the aim or effect of providing protection to domestic goods, services or service suppliers.[71] The AB and panels have established tilted "conditions of competition" by examining any differential in the per-unit costs as between imports and domestic goods allegedly imposed by the regulation, including upstream or downstream from the precise sector upon which the regulation is applied. This analysis essentially takes separate snapshots of the domestic and foreign industries – largely abstracted from their histories of production processes, business models or market penetration.

A few examples can illustrate this approach.

In the *U.S.-Gasoline* dispute (which turned on a GATT Article III:4 national treatment violation), Brazil argued that its gasoline was sold mostly on the U.S. East Coast. Brazil's U.S. East Coast competitors that met certain record-keeping requirements and had no compliance violations were able to establish their own individual CAA baselines based on 1990 cleanliness levels. This could result in less stringent requirements than the statutory baseline applicable to Brazil (a U.S. nationwide average that included the cleaner gasoline produced for the California market).[72] The U.S. noted that it would be difficult to ensure the accuracy of overseas refinery records, which is why the U.S. adopted a statutory baseline comprised of the average of all U.S. refineries' actual performance to set the standard for imported gasoline.[73]

The panel found that the CAA baseline requirement could require importers to import cleaner gasoline (or to import "dirty" gasoline at a lower price) than a domestic refiner using its own baseline. The panel concluded that GATT Article III:4 requires governments to ensure that CAA requirements not keep imported gasoline from "benefiting from as favorable sales conditions" as domestic gasoline.[74] The panel rejected the U.S. argument that the "characteristics of the producer and the nature of the data held by it" allow less favorable treatment. With this flexibility, "imported goods would be exposed to a highly subjective and variable treatment according to extraneous factors. This would thereby create great instability and uncertainty in the conditions of competition as between domestic and imported goods in a manner fundamentally inconsistent with the object and purpose of Article III." The U.S. reiterated that the importer only had to meet the statutory baseline "on average," meaning that a combination of cleaner and dirtier gasoline could be imported and that U.S. refineries with record keeping violations also had to meet the statutorily set average baseline. The panel rejected these arguments and found that Article III:4 requires equality of competitive opportunities on a per unit basis – including on the first unit sold.[75]

In the recent *U.S.-Tuna II* case, tuna caught by U.S. fishing fleets largely qualified for dolphin-safe labels. This was the case because these fishers complied with a ban on the use of purse seine nets. In contrast, Mexican tuna caught in the Eastern Tropical Pacific with a chase-circle-net did not qualify for the labels. The U.S. dolphin-safe labels were found to be "detrimental" to Mexico. The AB gave little weight to the reasonableness of the underlying regulatory distinction (based on differing fishing practices that were more or less harmful to dolphins),[76] or the fact that fleets from other nations like Ecuador had adapted their practices to take advantage of the label.

In the recent WTO ruling against U.S. country-of-origin labels (COOL), the U.S. government was held responsible for the preexisting market shares of Mexican and Canadian meat in the U.S. market, for the geographic distance of these countries' cattle and hogs to the main U.S. slaughterhouses, and for how private companies chose to comply with a labeling initiative.[77]

As these cases show, a wide range of private sector decisions or regulatory distinctions and effects can constitute less favorable treatment for which a country can be held liable.

Because services lack physicality and tariff classification, trade pact national treatment rules have applied in different ways. The AB has offered limited guidance on how "likeness" will be established under the GATS, but the WTO panel in *Canada-Autos* has stated that "to the extent that the service suppliers concerned supply the same services, they should be considered 'like' for the purpose of this case."[78] The Appellate Body has not yet elaborated a detailed GATS likeness test. While these categories do not lend themselves precisely to the context of services (which do not have tariff classifications or physicality), an investigation of consumer willingness to substitute one "quantum" of coal distribution services for another, or of the range of "end uses" for a coal-related service, might help establish that foreign and domestic coal distribution services are like.

The GATS national treatment cases to this point have all dealt with instances where foreign service or service suppliers were clearly receiving less favorable treatment for reasons unconnected to obvious environmental concerns. But nothing in the rules themselves would foreclose WTO analysis of the national treatment consistency of how, say, a particular BACT or RACT requirement affected foreign suppliers of pipeline, emissions trading, air cleanliness, or engineering services.

A different set of national treatment rules have applied in the FTA and BIT investment realm. For instance, NAFTA's national treatment provision reads: "Each Party shall accord to investors of another Party treatment no less favorable than that it accords, in like circumstances, to its own investors with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments." A separate provision has the same rules for "investments."

As one NAFTA panel wrote, the domestic entities "in like circumstances" whose treatment should be compared are those firms operating in the same sector. The "same sector" should in turn be interpreted broadly to include the concepts of "economic sector" and "business sector."[79] The comparison is thus on national versus foreign entities that "share the market" and "compete directly," and foreign investors "and their investment are entitled to the best level of treatment available to any other domestic investor or investment operating in like circumstances."[80] If domestic companies are exempted from an onerous requirement that foreigners must meet (perhaps simply because they cluster in different but substitutable products or services), then an investment national treatment violation can be found.[81] Generally speaking, investment panels hew more to a "discriminatory aim and/or effect" approach than do trade panels, with particular emphasis on the demonstration of a protectionist effect.[82]

The "in like circumstances" condition does not apply to services context. Indeed, WTO panels have held that service providers could be in very different contexts (i.e. one could be providing services within the country, and another outside without any establishment in the country), and still, government regulations must afford them the same competitive opportunities.[83] The *Canada-Autos* panel ruling (coupled with another panel statement that prospective rather than actual service providers could be deemed "like"[84]) shows that a diverse range of corporations could push their government to launch WTO dispute settlement over a CAA measure relating to services, even when these companies have little to no actual penetration in U.S. markets.

Most Favored Nation Rules

The MFN rules in trade and investment agreements are broadly analogous to the national treatment rules, except their goal is to ensure that the best treatment that a government gives to goods, services and investments from any foreign country are extended to all countries. In the CAA context, German small businesses may benefit from small business exemptions in the Tailpipe Rule while a Chinese company may not. This is because some of the exemptions apply to whether producers had a U.S. presence in 2009. Certain European small producers likely had presence then, while certain other Chinese producers likely did not. Governments can be held accountable as to whether exemptions benefit producers in an "evenhanded" manner. Additionally, because a fair number of exempted auto makers are from Germany or Italy, it would appear that these countries are receiving more favorable treatment than say Korea, which does not appear to have any firms that will qualify for the various exemptions/exceptions.

It is not difficult to see how the CAA could run afoul of these national treatment obligations. The obligations and exemptions for emitters under the Tailpipe and Truck Rules are so complex (see Appendix I) that it is possible (and indeed likely) that each individual emitter could be treated differently from any other emitter, and that these differences could constitute advantages for certain domestic companies.

- Because the standards apply to a manufacturer's overall fleet, a manufacturer's fleet which is dominated by small footprint vehicles will have a higher fuel economy requirement (lower CO_2 requirement) than a manufacturer whose fleet is dominated by large footprint vehicles. (Notably, a 1994 GATT panel (just before the WTO came into existence) ruled against an aspect of fleetwide averaging under the U.S. CAFE program as it was applied to foreign fleets, because it could result in a foreign car in a fleet dominated by large cars having to meet tougher standards that a similar car in a fleet that includes small cars.[85])
- Each manufacturer will have different levels of banked credits, depending on their own business decisions. Foreign manufacturers from a given country may end up having fewer credits as a group than U.S. or another particular country's manufacturers.
- Small volume manufacturers, small businesses, and manufacturers that utilize particular technologies could all end up being better off (or less burdened) by the rules than other companies. These benefits could end up accruing in discriminatory patterns, even if that was not EPA's intent.

- Large vehicles are treated completely differently than smaller vehicles, and (depending on their attributes or uses) different classes of large vehicles are treated differently from one another.
- As EPA announced in the truck rule, U.S. industrial competitiveness is actually a goal of the rule for trucks, which are predominantly made in the U.S. by U.S. companies. As occurred in the GATT ruling against the U.S. CAFE standards, such a comment could be taken as evidence of discriminatory intent in the trade law proceedings where intent is relevant (i.e. investment panels and trade panels examining exceptions).

Turning to the stationary source rules, there are also a range of exceptions that will create differential treatment. Small emitters are currently exempted from PSD requirements through the Tailoring Rule. But a small metal smelter makes the same product and is associated with the same services as a large metal smelter. The only reason the former is exempted is because of a particular theory of compliance burden that EPA has articulated. But this theory will have little to no bearing in a WTO case if domestic companies are clustered in the smaller and exempt category.

Also, the PSD requirements will trigger the use of best available control technology (BACT). It is possible that this standard will give advantages to U.S. providers of certain goods or services, if the only way for emitters to meet the BACT requirements is to employ those goods or services, over alternative (foreign and domestic) goods or services that would not produce the EPA's required result. It may not matter that some domestic firms with inferior technology were also disadvantaged: the prevailing "snapshot" methodology will show altered conditions of competition.

Market Access

We will not explore the market access disciplines in detail, as they pertain most directly to import bans of goods (GATT Article XI) or quantitative caps for services (i.e. monopolies and bans). The CAA is unlikely to institute such measures. However, the CAA's technology-forcing aspects could – as noted above – effectively require the use of certain technologies over others, and those technologies could happen to be primarily domestic.

Because the U.S. has full market access commitments in many of the most environmentally-sensitive service sectors above, it is obligated under GATS Article XVI(2)(b) and (c) to not impose measures that are a "limitation on the total value of service transactions or assets in the form of numerical quotas or the requirement of an economic needs test" (ENT) or on "the total quantity of service output expressed in terms of designated numerical units in the form of quotas or the requirement of an" ENT. In the *U.S.-Gambling* case, the Appellate Body noted that measures can violate Article XVI(2) when they "are in form *or* in effect" a numerical cap.[86] In the *China-Payments* dispute, the U.S. argued that a constellation of measures that may not violate Article XVI(2) on their own may do so cumulatively. The U.S. also argued that a quantitative limitation on a mere slice of a committed service sector could violate China's market access commitments.[87] The panel sided with the U.S. on the latter question, and was willing to entertain the former.[88]

This shows that a BACT requirement under the CAA – when coupled with other domestic regulations from NHTSA or Commerce – could constitute a prohibited quantitative cap in certain situations.

International Standards

TBT Article 2.4 reads: "Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems."

In the *EC-Sardines* case, the lower panel wrote that "Article 2.4 of the TBT Agreement imposes an ongoing obligation on Members to reassess their existing technical regulations in light of the adoption of new international standards or the revision of existing international standards" and that "even if not adopted by consensus, an international standard can constitute a relevant international standard."[89] Because the EC alleged (and the complainant Peru had not rebutted) that "market transparency, consumer protection and fair competition" were EC's "legitimate objectives," the case turned on whether a labeling requirement that allowed only certain locally harvested sardine species to be labeled "preserved sardines" actually fulfilled these legitimate objectives, or whether the EC should have instead based its sardine labeling requirements on the international CODEX standard. (The panel noted that Article 2.2 of the TBT defines "legitimate objectives.") Not finding sufficient evidence to overturn Peru's argument, the panel concluded that it had not been shown that CODEX would be an "ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued by the EC Regulation, i.e., consumer protection, market transparency and fair competition."[90]

The AB upheld the lower panel's finding in the case, and added that:

> "an international standard is used 'as a basis for' a technical regulation when it is used as the principal constituent or fundamental principle for the purpose of enacting the technical regulation… there must be a very strong and very close relationship between two things in order to be able to say that one is 'the basis for' the other… The European Communities maintains that a 'rational relationship' between an international standard and a technical regulation is sufficient to conclude that the former is used 'as a basis for' the latter. According to the European Communities, an examination based on the criterion of the existence of a 'rational relationship' focuses on 'the qualitative aspect of the substantive relationship that should exist between the relevant international standard and the technical regulation'. In response to questioning at the oral hearing, the European Communities added that a 'rational relationship' exists when the technical regulation is informed in its overall scope by the international standard… Yet, we see nothing in the text of Article 2.4 to support the European Communities' view, nor has the European Communities pointed to any such support."[91]

The AB went on to note that differing international and domestic standards may contradict one another, in which case the latter could not be "based on" the former.[92]

Absent congressional action, the statutory triggers in the CAA have taken place on their own path and momentum – irrespective of what happens in the international climate talks. It is possible and even likely that the U.S. standards will diverge from other global standards, which could create problems for the EPA.

Exceptions and Trade Restrictiveness

The GATT general exception at Article XX reads in part:

> "Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:…
>
> (b) necessary to protect human, animal or plant life or health;…
> (d) necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement,…
> (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;…"

The GATS contains similar language at Article XIV, but without the "natural resources" clause.

In the *U.S.-Gasoline* case, the AB noted that the nexus under GATT Article XX(g) is that the measure be "related to" (i.e. "primarily aimed at") conservation, as opposed to the more difficult to meet "necessity" test under Article XX(b).[93] Turning to the "chapeau" (introductory paragraph) the AB ruled that the CAA baselines were "arbitrary" and "unjustifiable" because the U.S. (while claiming the difficulty of enforcing U.S. law extraterritorially) had not pursued "cooperative arrangements" with Brazil and Venezuela to attempt to do so. The AB also stated that the U.S. had considered the compliance costs for domestic refineries but not foreign ones.

In evaluating the "necessity test" under Article XX(b), panels first analyze the contribution of a measure to its goal, the importance of the goal, and its trade-restrictiveness. If a challenged measure is less effective, if its goal is less important, or if it especially trade restrictive, this will all count against the respondent in a panel's weighing and balancing. Second, a complainant may propose alternative measures that are less trade restrictive, and a panel would be allowed to second-guess the regulator as to whether that option was reasonably available to the respondent (or more effective, etc.).[94] There is ample room for panel discretion in all of these areas.

The WTO has ruled against GATT Article XX (or the similar exception for services) as a defense in 96 percent of the relevant cases (26 out of 27).[95] But even that one success – where France's asbestos ban was upheld against Canada's attack – was too frequent for some.

Complainants are using the lessons of *EC-Asbestos* to find more aggressive ways of undermining general exception defenses. When the WTO ruled that the U.S. Internet gambling ban violated the General Agreement on Trade in Services (GATS) market access rules, the U.S. attempted to invoke GATS Article XIV as a defense, arguing that the ban was necessary to protect public morals. The AB ruled in the U.S. favor on most aspects of this defense, but deemed that the existence of another law that allowed some types of remote gambling on horseracing undermined the defense by not meeting the requirements of the chapeau.[96]

This case shows that, unless a government is totally consistent on its policy goals across the federal and state governments, its invocations of general exceptions can be undermined at the WTO. (In the *EC-Asbestos* case, the lower panel and AB noted that Canada made exceedingly weak arguments. The case might have turned out differently had Canada appealed more aspects of the lower panel ruling, if it had been able to marshal some scientists to cast any aspersions on EC's factual claims on the relative health risks of asbestos and alternative fibers (even if it wasn't the majority view in the scientific community); or if there were any meaningful exceptions to France's regulatory regime (which could have undermined its fulfillment of the objective or the totality of the ban).)

If a CAA-related measure were attacked at the WTO, a panel (tasked with looking at all areas of public interest regulation through a trade lens) would ask whether a certain amount of trade restriction was "necessary" when weighed against the contribution of the policy measure to public interest goals. Indeed, smart trade lawyers for complainants can typically find some inconsistency across domestic laws or enforcement patterns to persuade a panel on an "arbitrariness" finding.

Exception-like provisions in the TBT jurisprudence

The TBT has some unique exception-like provisions that merit exploration. Noting that the TBT, unlike the GATT, lacks a general exception, the AB has made a partial concession to regulators by creating *ex nihilo* a new "exception" type concept for TBT Article 2.1 national treatment violations: that "detrimental impacts on competitive opportunities stemming exclusively from legitimate regulatory distinctions" (DIOCOSEFLRD) can be allowed.[97] It seems difficult if not impossible for any health or environmental policy to have a "detrimental impact on competitive opportunities [that] stems *exclusively* from the legitimate regulatory distinction" (emphasis added). Competitive opportunities are shaped by many factors, and many environmental policymakers have attempted to achieve both competitiveness and environmental goals simultaneously. But this TBT jurisprudence suggests that such comingling of objectives may be ruled against.

The *U.S.-COOL* decision found that the DIOCOSEFLRD defense cannot be used in instances where a panel considers a regulation to be "arbitrary," "disproportionate," or "unjustifiable."[98] To a lay reader, the word choice here would seem to mark out truly egregious or misanthropic policy choices. In fact, in the *U.S.-COOL* case, the Appellate Body found that a U.S. requirement on upstream-from-retail producers to collect more information than would be disclosed to the

public rose to the level of arbitrariness. This arbitrary arbitrariness finding – like all AB decisions – cannot be appealed.

Trade restrictiveness (TBT Article 2.2) is a unique discipline in the TBT that falls somewhere between national treatment obligation and a GATT Article XX type exception. It reads: "Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create. Such legitimate objectives are, *inter alia:* national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, *inter alia:* available scientific and technical information, related processing technology or intended end-uses of products."

There is very scarce jurisprudence as to what this standard means. Generally speaking, while national treatment analysis calls for an inquiry only into "the distinction [under a technical regulation] that accounts for the detrimental impact" on foreign products, under Article 2.2 "all distinctions drawn by the measure are potentially relevant." [99] The *U.S.-COOL* decision also elaborates an unwieldy nine-step test under Article 2.2: 1) identifying the measure's objective,[100] 2) determining its legitimacy,[101] 3) evaluating its trade restrictiveness,[102] 4) analyzing alternative less trade restrictive measures,[103] 5) evaluating to what degree a measure achieves its objective,[104] 6) evaluating alternative measures that could achieve the objective,[105] 7) determining the risks of non-fulfilment of the objective,[106] 8) evaluating the risk profiled of alternative measures,[107] 9) weighing and balancing of steps 3 through 8 to establish "necessity."[108]

As can be seen, this standard shares many elements with Article XX of the GATT. There has been no finding of an Article 2.2 violation as of the writing of this paper. However, it is notable that in the *U.S.-Gasoline* case, Venezuela argued that the CAA baseline requirements violated Article 2.2 because the U.S. could improve air quality in the U.S. without utilizing the baseline requirements, which was trade-restrictive despite the fact that less restrictive options were open to the U.S. Venezuela noted that the U.S. had not adequately explained the risk of non-fulfillment of its objectives, in particular whether "gaming" of the system would constitute a major problem and whether the low level of imported gasoline (even if dirtier) could meaningfully undermine average emission quality of the gasoline consumed in the U.S.[109] This claim was not subsequently examined by the WTO panel in the case, but gives a flavor for the types of expansive attacks on clean air policy that can be made under the TBT.

What do these exception provisions mean for the CAA? Most concretely, they show that any flexibility under the Tailpipe Rule, Truck Rule or PSD for GhGs can undermine the U.S.' recourse to a defense under GATT Article XX, GATS Article XIV, or the pseudo defenses under the TBT.

Say a complainant country can show that its goods or services face adverse conditions of competition in the U.S. market as a result of a CAA measure. If the U.S. attempted to invoke an

exception, the complainant could argue that the compliance flexibilities – because they would tend to contribute to rather than lessen GhG emissions – undermine the U.S. objectives. This could be a sufficient basis for showing that the CAA measure was arbitrary or unnecessary.

The CAA is perhaps uniquely ill-suited for defense under these exception provisions. The reams of comments that the EPA collects, and the volume of litigation associated with each CAA rule, provide a bounty of potential (less trade restrictive) alternative measures that industry favors. Many U.S. judges, policymakers and NGOs have weighed in for or against each CAA tool for addressing GhGs – most prominently on the ground that a purely domestic or U.S. state-level approach is unlikely to achieve the goal of meaningful GhG reductions. A WTO complainant would need only consult the Supreme Court dissent in *Massachusetts v. EPA* – or discourse of congressional Republicans – to get fodder for overturning U.S. invocation of a general exception defense. The fact that the Trucks Rule mentions competitiveness concerns could also be grounds for an arbitrariness finding.

Fair and Equitable Treatment

The most successful (and controversial) basis for investors' challenges of government measures under trade and investment agreements is alleged violations of "fair and equitable treatment" (FET) provisions. The relevant provision reads: "Each Party shall accord to covered investments treatment in accordance with customary international law, including fair and equitable treatment and full protection and security." (Recent trade deals have supplemented this with an annex that states: "The Parties confirm their shared understanding that 'customary international law' generally and as specifically referenced in Article 10.5 results from a general and consistent practice of States that they follow from a sense of legal obligation. With regard to Article 10.5, the customary international law minimum standard of treatment of aliens refers to all customary international law principles that protect the economic rights and interests of aliens."[110])

Of the 23 known "wins" by investors under U.S. trade and investment agreements, 75 percent (17) have found FET violations. In contrast, only six have found national treatment violations, three have found expropriation violations, and three have found performance requirement violations. (Some cases found violations of multiple standards.)

What does this provision mean? Even legal experts find these provisions circular, vague and worryingly elastic. For instance, in the *Pope & Talbot v. Canada* NAFTA case, a tribunal found that a bureaucrat's unpleasant interactions with the U.S. timber firms constituted a breach of the Minimum Standard of Treatment rule, even when the tribunal dismissed as specious other more substantive alleged investor rights violations.[111]

While some violations have been found by cause of denials of justice (as that term has long been understood under customary international law), some arbitral tribunals have subjected domestic legal and constitutional norms to supranational review. In a case released under the Central America Free Trade Agreement, an arbitral panel found that a core aspect of Guatemala's administrative law procedure violates rights for investors under CAFTA, even though Guatemalan investors are subject to it.[112]

Other arbitral panels have been willing to find FET violations for regulatory actions that they investor claims violated their "reasonable expectations." As the *El Paso v. Argentina* tribunal wrote:

> "Sometimes, the description of what FET implies looks like a programme of good governance that no State in the world is capable of guaranteeing at all times. The exigencies of FET have been detailed in Tecmed in the following manner: 'To provide to international investments treatment that does not affect the basic expectations that were taken into account by the foreign investor to make the investment. The foreign investor expects the host State to act in a consistent manner, free from ambiguity and totally transparently in its relations with the foreign investor, so that it may know beforehand any and all rules and regulations that will govern its investments, as well as the goals of the relevant policies and administrative practices or directives, to be able to plan its investment and comply with such regulations. Any and all State actions conforming to such criteria should relate not only to the guidelines, directives or requirements issued, or the resolutions approved thereunder, but also to the goals underlying such regulations. The foreign investor also expects the host State to act consistently, i.e. without arbitrarily revoking any preexisting decisions or permits issued by the state that were relied upon by the investor to assume its commitments as well as to plan and launch its commercial and business activities. The investor also expects the state to use the legal instruments that govern the actions of the investor or the investment in conformity with the function usually assigned to such instruments, and not to deprive the investor of its investment without the required compensation.'…
>
> Another only slightly less far-reaching conception implies that the State is under an obligation to stabilise the legal and business framework in which the foreign investment was made. For example, in the VAT case of Occidental Exploration and Production Co. v. Ecuador, the tribunal stated: 'Although fair and equitable treatment is not defined in the Treaty, the Preamble clearly records the agreement of the parties that such treatment 'is desirable in order to maintain a stable framework for investment and maximum effective utilization of economic resources.' The stability of the legal and business framework is thus an essential element of fair and equitable treatment.'
>
> The Tribunal further stressed this point by saying that 'there is certainly an obligation not to alter the legal and business environment in which the investment has been made.'"

While the *El Paso* tribunal distanced itself from these findings, it nonetheless wrote that:

> "…the Tribunal considers that a violation can be found even if there is a mere objective disregard of the rights enjoyed by the investor under the FET standard, and that such a violation does not require subjective bad faith on the part of the State. This approach of the Tribunal has been followed in several earlier arbitral awards."[113]

The Annex itself was added to U.S. FTAs after various NAFTA tribunals stretched the Minimum Standard of Treatment rule to require government compensation of foreign investors for

outlandish reasons.[114] But, in the RDC CAFTA ruling, a unanimous arbitral panel appeared to give the annex little weight.[115]

Clearly, a dynamic and evolving regulatory regime like the CAA could present a host of grounds for investor challenge under the FET standard. Indeed, *Massachusetts v. EPA* itself could be the target of an investor challenge, since it triggered such a massive change in the rules of the game for a wide range of auto, construction and other investors.

Indirect Expropriation

FTAs and BITs guarantee foreign investors compensation from a signatory government (i.e., from the taxpayers) for expropriation or nationalization of a covered investment either directly "or indirectly through measures equivalent to expropriation or nationalization." This provision provides foreign investors rights to demand compensation even if their property has not actually been nationalized or seized, but has lost value because of even non-discriminatory government regulatory actions.

Similar language in NAFTA has been the basis for successful investor demands to be compensated for "regulatory takings" – government regulatory policies that have the effect of undermining a foreign investor's expected future profits or the value of an investment. For instance, in the Metalclad NAFTA ruling, the Mexican government was ordered to pay a U.S. firm $15.6 million in compensation after the firm challenged a Mexican municipality's refusal to grant construction and operating permits for a toxic waste facility the U.S. firm had acquired — after the operation had been closed down for contamination problems when owned by a Mexican firm. The government required the new owners to clean up the existing contamination before reopening the facility, the same obligation it had placed on the previous Mexican owners. (The lack of all necessary operating permits and the contamination problem had been made clear to the U.S. firm before it acquired the site.) The NAFTA tribunal determined the government regulatory requirements constituted a regulatory taking and ordered compensation.[116]

An annex was added to recent FTAs that states: "Except in rare circumstances, nondiscriminatory regulatory actions by a Party that are designed and applied to protect legitimate public welfare objectives, such as public health, safety, and the environment, do not constitute indirect expropriations."[117] When previous FTAs were being debated, this provision was criticized for leaving open *any discretion* for a tribunal to find a non-discriminatory public interest policy required compensation, which is not permitted in U.S. law.[118]

It is worth noting that U.S. law would not typically allow for the types of regulatory takings claims regularly made under FTAs and BITs, nor would the law of U.S. trading partners.[119] The requirement of compensation for "regulatory takings" under the Fifth Amendment of the U.S. Constitution has generally been only held to apply to regulations that take nearly 100 percent of *real* property.[120] For example, the Supreme Court has indicated that personal property is unlikely to be the basis for a successful regulatory takings claim given that "in the case of personal property, by reason of the State's traditionally high degree of control over commercial dealings, [the owner] ought to be aware of the possibility that new regulation might even render his property economically worthless."[121]

However, the indirect expropriation provision in investment agreements has been interpreted to require compensation based on the impact of the government measure on the value of the investment, regardless of whether there has actually been some appropriation of an asset by the government.[122] This interpretation of the standard for indirect expropriation cannot be justified as reflecting the general practice of states, as required in the FET annex noted above, given that the dominant practice of nations is to provide for compensation only when the government has actually acquired an asset, not when the value of an asset has been adversely affected by regulatory measures.[123] Still, even with these annexes, the CAFTA ruling in the *RDC v. Guatemala* case leaves open the possibility that only "substantial" (rather than total) deprivation of the value of an investment can trigger compensation obligations.[124]

The technology-forcing aspects of the CAA will make some less carbon-efficient technologies obsolete. Moreover, GhG regulation under the CAA may eventually make certain types of coal and other production unprofitable. A foreign investor in these sectors might be able to launch an FTA or BIT case alleging that – even through these applications of the CAA are non-discriminatory and similarly affect U.S. investors – that they constitute indirect expropriations of a substantial value of their investment. U.S. taxpayers could then be on the hook for compensation claims from such corporations.

IV. Fixes

As this memo makes clear, regulation of greenhouse gases under the Clean Air Act is susceptible to challenge under U.S. trade and investment pacts – both existing ones and those under consideration by the Obama administration. This is concerning not only because of the problem of the conflict of domestic and trade law *per se*, but also because these rulings give fodder and a veneer of legitimacy for domestic forces that are seeking to roll back regulation. (For a CAA-related case study in this, see our case study in Appendix II.)

A first best solution would be to have an entirely different model of trade deal – one that grants greater deference to domestic environmental regulators. In the absence of such a systemic solution, a strengthened general exception for environmental policies should be considered.

The current GATT Article XX exception imposes too many obstacles to its effective use; the GATS Article XIV exception lacks even the GATT natural resource exception; the TBT lacks any general exception (and the improvised pseudo-exceptions recently elaborated by the WTO's AB are extremely difficult to use); and the investment agreements lack general exceptions that be invoked when a country is accused of violating disciplines like FET or indirect expropriation.

We have elsewhere recommended a series of changes to the TPP that could ensure that trade deals do not interfere with environmental policy. If elimination of the investor-state system or textual changes to the FET and expropriation language is not possible in the short term, the following changes would be a useful down payment on further change:

1. include a provision that gives priority to the implementation of bilateral or multilateral agreements relating to public health, human and labor rights, the environment, or other

public interest goals in the event of any inconsistency between the trade agreement and such bilateral or multilateral agreement; and

2. include in its list of general exceptions the following language: Notwithstanding any other provision of this agreement, a provision of law that is nondiscriminatory on its face and relates to domestic health, consumer safety, the environment, labor rights, worker health and safety, economic equity, consumer access, the provision of goods or services, or investment, shall not be subject to challenge under the dispute resolution mechanism established under this agreement, unless the primary purpose of the law is to discriminate with respect to market access.

Such changes would give substantially more comfort to climate campaigners that the CAA would be insulated from challenged under the TPP.

Appendix I: Tailpipe and Truck Rule

The Tailpipe Rule makes a wide variety of regulatory distinctions.

Each manufacturer will have a GhG and CAFE standard unique to its fleet, depending on the mix of vehicles actually produced and sold.[125] Compliance with the standard will be determined by computing the sales-weighted average (harmonic average for the CAFE standard) of the targets applicable to each of the manufacturer's passenger cars and light trucks. Because the standards apply to a manufacturer's overall fleet, a manufacturer's fleet which is dominated by small footprint vehicles will have a higher fuel economy requirement (lower CO_2 requirement) than a manufacturer whose fleet is dominated by large footprint vehicles. However, all manufacturers must make improvements to reduce CO_2 emissions or improve fuel economy. EPA and NHTSA conclude that the burden of compliance is distributed across all vehicles and all manufacturers.[126] (However, comments suggest that industry players may not agree. For example, BMW (a foreign company) commented that their MY 2016 footprint-based standard is projected to be more than 4% more stringent that the fleet average standard of 250 gCO_2/mile.[127])

The Tailpipe Rule comes with a number of different exemptions and flexibilities that will mean that each manufacturer's compliance path will be different. From a domestic policy perspective, this approach is largely viewed as advantageous because it allows individual manufacturers to find the most efficient path to meeting the standards. However, from an international trade perspective, such differences may actually be the source of a legal challenge.

- Manufacturers who exceed or fall below their targets can earn credits or debits that can be traded with other vehicle manufacturers.
- Improvements in air conditioning efficiency and leakage rates can also generate credits.
- Manufacturers with low U.S. sales volumes may be given flexibility through 2016 if they are eligible for a program known as the Temporary Lead-Time Allowance Alternative Standards (TLAAS).[128] The TLAAS program allows manufacturers to meet less stringent standards.. Notably, this flexibility only applies to firms that had some U.S. sales in 2009[129] – i.e. any manufacturers that did not have auto sales in that year (notably, a recession year when auto sales were down) would not qualify.
- Based on comments from Jaguar Land Rover, Porsche[130], Ferrari, Aston Martin, and others, EPA deferred (exempted) imposing standards on "small volume manufacturers" (SVMs) with annual U.S. sales of less than 5,000 vehicles per year, and established a secondary TLAAS programs for manufacturers with MY 2009 U.S. sales of less than 50,000 vehicles (but above the 5,000 vehicle threshold being established for SVMs).[131] These manufacturers "commented that their range of products was insufficient to allow them to meet the standards in the time provided, even with the proposed TLAAS program. Many of these manufacturers have baseline emissions significantly higher than their larger-volume competitors, and thus the CO_2 reductions required from baseline under the program are larger for many of these companies than for other companies."[132] EPA estimates that the SVM flexibilities "will have a very small impact on the GhG emissions reductions from the standards."[133] (After MY 2016, EPA is proposing a case-by-case approach[134] in which SVMs must petition the agency for an alternative CO_2 standard for the model years covered in the MY 2017 and later proposal.)

- EPA has exempted all small entities meeting the Small Business Administration (SBA) size criterion of a small business[135] from GhG emissions standards. EPA will consider standards for these entities in a future regulatory action. This exemption includes both U.S.-based and foreign entities in three distinct categories of businesses for light-duty vehicles: small volume manufacturers (SVMs), independent commercial importers (ICIs), and alternative fuel vehicle converters.[136] EPA estimates there "currently are approximately two small volume manufacturers, eight ICIs, and three alternative fuel vehicle converters in the light-duty vehicle market."[137]
- Flexible fuel vehicles and vehicles that use advanced technology are also given favorable emissions calculations based not on what they actually emit, but on an assumption that they will emit low volumes of emissions.

The Trucks Rule is also complicated. Regulators will distinguish between requirements for three categories of heavy-duty vehicles: combination tractors; vocational vehicles; and heavy-duty pickups and vans.

- For combination tractor engines, there will be requirements to upgrade engine efficiency and vehicle design (addressing vehicle weight, cab type and roof height). The emissions targets will be different for each combination of these characteristics. Distinctions are also made based on their ignition type (i.e. diesel or gasoline).
- The vocational vehicle standards apply to the chassis manufacturer, and involve a requirement to use low-rolling-resistance tires.
- Pickups and vans – which are made overwhelmingly by U.S. companies – face their own idiosyncratic rules. Target GhG and fuel consumption standards will be determined for each vehicle with a unique work factor, analogous to a target for each discrete vehicle footprint in the light-duty vehicle rules. These targets will then be production weighted and summed to derive a manufacturer's annual fleet average standard for its heavy-duty pickups and vans.[138]
- It follows that each manufacturer will have standards unique to its new HD pickup and van fleet in each model year, depending on the "work factor" of the vehicle models produced by that manufacturer, and on the U.S.-directed production volume of each of those models in that model year.[139]
- EPA's GhG standards are phased in gradually over the 2014-2018 model years, with full implementation effective in the 2018 model year. Therefore, 100 percent of a manufacturer's vehicle fleet will need to meet a fleet-average standard that will become increasingly more stringent each year of the phase-in period. For both gasoline and diesel vehicles, this phase-in will be 15-20-40-60-100 percent of the model year 2018 stringency in model years 2014-2015-2016-2017-2018, respectively.[140]
- At the end of each model year, i.e. when production and sales for a year are complete, a manufacturer will calculate its "production-weighted fleet average" CO_2 emission levels and fuel consumption. A manufacturer's fleet that achieves a fleet average level better than its standard will be allowed to generate credits. Conversely, if the fleet average level does not meet its standard, the fleet would incur debits.[141]
- Like the Tailpipe Program, the trucks program also features banking and trading of credits. Additionally, it features credits (tallied higher with the use of a favorable multiplier) for manufacturers that achieve targets early, use advanced technology, or use other innovative technology.

- There's a special exemption for small businesses that are set at different levels that in the Tailpipe Program. Volvo and others suggested that by exempting small businesses as proposed would create a competitive advantage for small businesses over larger entities. EMA commented that the exemption should not apply to market segments where a small business has a significant share of a particular HD market. Volvo argued that the exempted businesses could expand their product offerings or sell vehicles on behalf of larger entities, thereby inappropriately increasing the scope of the exclusion.[142]
- Although the agencies set the primary standards with the expectation that they were "generally appropriate, cost-effective, and technologically feasible," there are individual products that may deviate significantly from the baseline level of performance, whether because of a specific approach to criteria pollution control, or due to engine calibration for specific applications or duty cycles.[143] For example, in the current fleet of 2010 and 2011 model year engines used in combination tractors, the agencies identified a relatively small group of so-called "legacy engines" that perform up to 25 percent worse than the average baseline. The "legacy engine" alternative standard appears to have been developed in response to comments from Navistar, a U.S. engine manufacturer. Navistar argues that some of the "legacy engine" producers are unable to utilize technologies the agencies characterized as "available."[144] For these manufacturers, "the same reduction from the industry baseline may not be possible at reasonably comparable cost [within the HD Rule MY 20-14-2018 timeframe], because these products may require a total redesign in order to meet the standards," or face substantial limits on using ABT by virtue of small products lines.[145] Although the agencies received opposition in public comments from both industry and environmental groups[146], "[t]he agencies continue to believe that an interim alternative standard is needed for these products, and that an interim standard reflects a legitimate difference between products starting from different fuel consumption/[GhG] emitting baselines."
- Oshkosh Corporation commented that NHTSA should add an export exclusion in order to accommodate the testing and delivery needs of manufacturers of vehicles intended for export. NHTSA agrees with this comment and Section 535.3 of the final rule specifies such an exclusion.[147]

Appendix II: The Clean Air Act at the WTO: *United States – Standards for Reformulated and Conventional Gasoline*

Summary

The Clean Air Act was originally enacted in 1963, and was substantially amended several times, including in 1990. Under the scheme as amended, the U.S. market for gasoline was divided into metropolitan and non-metropolitan areas. In the former, due to concerns with summertime ozone pollution, only "reformulated gasoline" could be sold. In the latter, conventional gasoline could be sold, subject to certain rules. Reformulated gasoline was defined as having low oxygen and benzene content, and no heavy metals such as lead. Moreover, gasoline must have a 15 percent reduction in emissions of toxics and volatile organize compounds, and no increase in emissions of nitrogen oxides. (After 2000, the CAA required a 20-25 percent reduction in such emissions.) In addition, the legislation spelled out anti-dumping rules, so that refiners, importers and blenders would only sell conventional gasoline that was as clean as that entity's 1990 levels. In instances where adequate and reliable data on 1990 gasoline was not available, EPA could apply a statutory baseline.

In February 1994, EPA published its final regulations implementing the 1990 amendments.

- *Baselines:* Domestic refiners were required to establish individual 1990 baselines based on precise quality data and volume records (Method 1), blendstock quality data and production records (Method 2), or a modeling exercise based on available data (Method 3). Importers-foreign refiners that sold at least 75 percent of their gasoline into the U.S. faced similar rules. However, refineries that were not in operation for most of 1990, and importers and blenders, were generally assigned the statutory baseline. EPA justified this because of the difficulty in ascertaining the truthfulness or appropriateness of records in these situations.
- *Reformulated gasoline:* Over 1995-1998, gasoline had to comply with a "Simple Model" consisting of either individual or statutory baselines. After 1998, a "Complex Model" will apply across the board and no individual baselines would be utilized.
- *Conventional gasoline:* The so-called "non-degradation" requirement would apply to most domestic refineries on the basis of their individual baseline, whereas most importers faced the statutory baseline. However, all gasoline produced in excess of an individual entity's 1990 levels faced the statutory baseline.[148]

In sum, the 1990 amendments constituted a targeted attempt to address a specific environmental problem, while minimizing compliance costs for business and enforcement costs for government.

On January 25, 1995, just weeks after the WTO had come into existence, Venezuela initiated dispute settlement proceedings related to these CAA-related measures. On April 10, Brazil also joined Venezuela in attacking the CAA-related policies. Norway and the European Union weighed into the case as third parties broadly supporting the complainants' positions. The case was argued over the coming months, and a lower panel circulated its panel report (the WTO's first ever) on January 29, 1996.[149] The U.S. appealed a very narrow aspect of the ruling, and the first Appellate Body report was circulated on April 29, 1996.[150] One day shy of a year later, on

April 28, 1997, the Environmental Protection Agency (EPA) published new regulations watering down the rule to comply with the WTO ruling.[151] In October 1997, a coalition of importers and domestic refiners (with some support from environmental groups) challenged the new regulations in U.S. courts, but were ruled against in November 1998.[152]

The WTO case was emblematic of the trade regime's threat to environmental and health regulation, and the U.S. response illustrated the potency these decisions could have in domestic politics and law.

Legal Arguments by Venezuela and Brazil

Venezuela and Brazil alleged that the CAA baselines violated seven major WTO provisions, which end up constituting the majority of provisions of interest to CAA campaigners that we will discuss in this memo.

First, Venezuela and Brazil argued that the 75 percent rule was a violation of most-favored nation rules (GATT Article I), since only Canadian refineries would have been likely to qualify for it. This rule reads in part: "any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties." The U.S. responded that the rule was motivated by EPA's capacity to ensure the accuracy of the baseline for this narrow class of importer-refiners that had deep ties with the U.S. market. In any case, the U.S. noted that the timeline for importer-refiners to qualify for the 75 percent rule had lapsed without any entity qualifying for it.[153]

Second, the complainants argued that the statutory baseline that applied to importers was in practice more onerous than the individual baselines and therefore a violation of GATT Article III:4 (National Treatment). This rule (one of the most commonly invoked in trade law) reads in part: "The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use."

By way of illustration, Brazilian gasoline was sold mostly on the U.S. East Coast. Brazil's East Coast competitors were able to establish their own individual baselines based on 1990 cleanliness levels, which would be "dirtier" than the statutory baseline (a U.S. nationwide average that included the cleaner gasoline produced for the California market) applicable to Brazil.

The U.S. noted in its defense that the CAA regime was flexible, and didn't require any single batch of gasoline to attain a certain level of cleanliness (but only that an importers' average importation of gasoline attain a certain level). Foreign refiners did not have to comply with the CAA at all – it was only importers that had to ensure that their gasoline on average attained certain levels. (This was of course key to the integrity of the regulatory regime.) The U.S. noted that it would be impossible to ensure the accuracy of overseas refinery records, which is why the U.S. adopted a simpler regime to deal with the cleanliness of imported gasoline. When EPA had

briefly considered an individual baseline methodology for importers, even Venezuela's national oil company objected that it would be unworkable. In any case, the U.S. noted that Venezuela's share of the U.S. market had increased in 1995 relative to 1994.[154]

Third, the complainants argued that the baseline requirements violated GATT Article III:1, which reads: "The contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions, should not be applied to imported or domestic products so as to afford protection to domestic production." Because this was a more general provision than GATT Article III:4, Venezuela stated it would only ask for a finding on GATT Article III:1 if the Article III:4 argument failed. The U.S. noted that this article was only exhortatory, as indicated by the use of the words "should not."[155]

Fourth, Venezuela and Brazil argued that the U.S. could not defend its GATT violations by reference to GATT Article XX, which reads in relevant part:

> "Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:…
>
> (b) necessary to protect human, animal or plant life or health;…
> (d) necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement,…
> (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;…"

With respect to the defense available in GATT Article XX(b), the U.S. argued that toxic air pollution caused cancer and other public health problems, and that nearly half of emissions came from vehicles, so targeting gasoline cleanliness was an effective way of addressing an obvious public health problem. The utilization of individual baselines was "the quickest and fairest way" to address the problem: a single baseline would require a rapid and costly upgrading for those refineries producing dirtier gasoline, while cleaner producers could reduce their average cleanliness to the baseline. Requiring importers to meet an individual baseline even if they had no data on 1990 cleanliness would have effectively blocked their gasoline from the U.S. market, so the statutory baseline was a flexible way to ensure that imports would be allowed into the U.S. market. Moreover, the U.S. argued,

> "it was not feasible to give individual baselines to foreign refiners for various reasons. First, gasoline was a fungible international commodity and a shipment of gasoline arriving in a US port generally contained a mixture of gasoline that had been produced at several foreign refineries. Therefore it would be very difficult, if not impossible, to determine the refinery of origin of a shipment of gasoline for the purpose of establishing

> an individual baseline. Second, the difficulty of identifying the refinery of origin would also favour potential gaming of the system since the foreign refiner could be tempted to claim the refinery of origin for each shipment of imported gasoline that would present the most benefits in terms of the baseline restrictions. The third reason related to the difficulties of the United States to exercise enforcement jurisdiction over foreign refiners. The Gasoline Rule could not be enforced simply by examining the product at the border but required EPA to audit the facilities of refineries in order to verify, *inter alia*, that the data provided to establish the individual baselines were accurate as well as to ensure future compliance. EPA also needed other enforcement tools such as criminal penalties, civil enforcement proceedings or court warrants, that would not be readily available to use outside US territory against a refinery located on foreign soil. Holding the importer accountable for the conduct of the foreign refiner with whom he has not colluded could have been an unfair solution."[156]

Venezuela and Brazil responded by arguing that the U.S. was overstating the risk of gaming, and that EPA could use enforcement tools similar to those used by the U.S. Customs Bureau or Consumer Product Safety Commission to ensure that imports met certain standards. In particular:

> "Brazil argued that the discrimination under the General Agreement or the TBT Agreement was not justifiable even assuming that the use of foreign refiners' individual baselines was impossible. If it were impossible to assign individual baselines to foreign refiners, the United States would then be justified in using individual baselines for domestic refiners only if no other, non-discriminatory measure were available. A WTO Member was not permitted to review several options, select one in which discrimination was unavoidable, and then plead that the selected option required discrimination. Under Article III of the General Agreement – but also under Article I of the General Agreement and Article 2 of the TBT Agreement – a WTO Member was obliged, when the policy option involved discrimination, to choose another option when one was available. In this particular case, there was such an available alternative, which was to apply the statutory baseline to all producers of gasoline."[157]

With respect to the defense available under GATT Article XX(d), the U.S. maintained that the baseline requirements were necessary to enforce the CAA's non-degradation requirements, which were not themselves incompatible with the GATT. The complainants maintained that the U.S. had not proven that these aspects of the CAA were GATT-compatible.[158]

With respect to the defense available under GATT Article XX(g), the U.S. argued that clean air was an exhaustible natural resource, and that the CAA imposed restrictions on domestic consumption of clean air. Venezuela maintained that air (rather than "clean" air) was the resource at issue, and that "loopholes" in the CAA undermined the legislation's efficacy. Both complainants argued that the "domestic restrictions" pertained to gasoline, not air.[159]

With respect to the introductory paragraph of GATT Article XX, the U.S. argued that the baseline requirements were not arbitrary or discriminatory, since rules applied to both domestic and imported gasoline. The U.S. noted, "to the extent that the enforcement conditions differed between the United States and other countries, the 'same conditions' did not prevail in the United

States and in other supplying countries. Accordingly, any differences in treatment were neither arbitrarily nor unjustifiably discriminatory, but were based on valid, legitimate policy reasons." Moreover, the baseline requirements could not be disguised restriction on trade, since imports were a tiny fraction of the U.S. gasoline market. Brazil and Venezuela indicated that the 75 percent rule (thought to favor Canadian refineries) showed that the baseline requirements were arbitrary, and reiterated their views that the baseline requirements violated GATT Article III:4 and were thus discriminatory and a disguised barrier to trade.[160]

Fifth, Venezuela argued that the baseline requirement was a violation of GATT Article XXIII:1(b), which reads: " If any contracting party should consider that any benefit accruing to it directly or indirectly under this Agreement is being nullified or impaired or that the attainment of any objective of the Agreement is being impeded as the result of… the application by another contracting party of any measure, whether or not it conflicts with the provisions of this Agreement,…" then the case can be referred to dispute settlement. Venezuela argued that the baseline requirements (even if they didn't violate other GATT provisions) were leading to a decline in shipments to the U.S. market. However, Venezuela only asked for a finding under this provision if its foregoing arguments failed.[161]

Sixth, the complainants argued that the baseline requirements violated the WTO's Agreement on Technical Barriers to Trade (TBT) Article 2.1, which reads: "Members shall ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country." They argued that the baseline requirements constituted a mandatory technical regulation for the product characteristics of gasoline, and that these requirements treated imported like gasoline less favorably. The U.S. responded that the baseline provisions applied to companies, not products. Moreover: "the term 'technical regulation' was not so broad as to cover all government regulatory actions affecting products. For example, government regulations requiring factory smokestacks to have devices to reduce emissions were not technical regulations, though they were in writing, mandatory and specified 'characteristics'… the complainants were interpreting the term 'technical regulation' out of context and such an interpretation, if accepted, would introduce into the TBT Agreement many measures which were in fact not intended to be covered. The United States also argued that Brazil's view that a 'product' in this case be defined as an entire year's production, rather than a shipment or a batch, would be a radical departure from the concept of 'product' under the WTO and was without basis in the WTO."[162]

Finally, Brazil and Venezuela argued that the baseline requirements violated TBT Article 2.2, which reads: "Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create. Such legitimate objectives are, *inter alia:* national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, *inter alia:* available scientific and technical information, related processing technology or intended end-uses of products." Venezuela noted that the U.S. could improve air quality in the U.S. without utilizing the baseline

requirements, which was trade-restrictive despite the fact that less restrictive options were open to the U.S. Venezuela noted that the U.S. had not adequately explained the risk of non-fulfillment of its objectives, in particular whether "gaming" of the system would constitute a major problem and whether the low level of imported gasoline (even if dirtier) could meaningfully undermine average emission quality of the gasoline consumed in the U.S.[163]

(Additionally, Venezuela had threatened to bring claims against the baseline rules on the basis that they violated GATT Article XI,[164] which states in part "No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party." But the country did not end up alleging this formally.)

Lower Panel Decision

On January 29, 1996, a lower panel consisting of Joseph Wong (Hong Kong), Crawford Falconer (New Zealand) and Kim Luotonen (Finland) issued their decision on Brazil and Venezuela's challenge of the CAA gasoline baselines.[165]

The panel noted that two elements must be satisfied for a finding of a GATT Article III:4 violation. First, there must exist "a law, regulation or requirement affecting the internal sale, offering for sale, purchase, transportation, distribution or use of an imported product"; and second, the "treatment accorded in respect of the law, regulation or requirement that is less favourable to the imported product than to the like product of national origin." Since there was no disagreement that the baseline requirements met the first requirement, the panel proceeded to assess the second requirement.[166]

The U.S. maintained that imported and domestic gasoline should not be considered "like" one another because of the different regulatory situations of the domestic and foreign refiners. The panel summarily rejected this argument, saying that "chemically identical imported and domestic gasoline by definition have exactly the same physical characteristics, end-uses, tariff classification, and are perfectly substitutable" and therefore "like."[167] (These four criteria are known as the *Border Tax Adjustments* criteria, and are used in virtually every WTO dispute relating to national treatment under the GATT and the TBT.)

The panel also simply stated that the CAA baseline requirement would require importers to import cleaner gasoline (or to import less clean gasoline at a lower price) than the domestic refiner. The panel concluded that GATT Article III:4 requires governments to ensure that CAA requirements not keep imported gasoline from "benefiting from as favorable sales conditions" as domestic gasoline.[168] The panel rejected the U.S. argument that the "characteristics of the producer and the nature of the data held by it" allow less favorable treatment. The panel concluded that to allow any flexibility for national policy in this area would be "contrary to the ordinary meaning of the terms of Article III:4" in violation of the interpretive principles enshrined in the Vienna Convention on the Law of Treaties. With this flexibility, "imported goods would be exposed to a highly subjective and variable treatment according to extraneous

factors. This would thereby create great instability and uncertainty in the conditions of competition as between domestic and imported goods in a manner fundamentally inconsistent with the object and purpose of Article III." The U.S. reiterated that the importer only had to meet the statutory baseline "on average," meaning that a combination of cleaner and dirtier gasoline could be imported. The panel rejected this argument and found that Article III:4 requires equality of competitive opportunities on a per unit basis – including on the first unit sold.[169]

The panel then proceeded to evaluate the use of Article XX exceptions in what would end up being a highly unusual way not followed by subsequent panels and partially overturned by the Appellate Body. For instance, in evaluating whether the baseline measures were "necessary to protect human, animal or plant life or health," the panel asked whether the alleged discrimination was necessary, not whether the CAA or baseline requirements were necessary. Despite this subsequently negatively treated finding, some findings have withstood the test of time. For instance, the EPA in 1994 had briefly considered developing individual baselines for importers. This helped establish a record that the actually implemented baselines were not the only available means of enacting the CAA policy goals, which undercut the U.S. defense that its baseline measures were "necessary." The panel also found that GATT rules might require the U.S. to implement regulatory schemes that it considers more costly, unwieldy or ineffective if the U.S. is unable to persuade a panel of its approach.[170]

For reasons of judicial economy, the panel did not examine the complainants' claims under the TBT or GATT Article I, III:1 or XXIII:1(b).

Appellate Body Decision

Surprisingly, the U.S. did not appeal most of the panel's findings. While gently chiding the lower panel's "opining on matters that were neither contested nor necessary" including on likeness,[171] the administration did not appeal even the finding on Article XX(b), which a legal expert indicated constituted "tacit acceptance" of the anti-environment ruling.[172]

An Appellate Body (AB) division of Florentino Feliciano (Philippines), *Christopher* Beeby *(New Zealand) and Mitsuo* Matsushita (Japan)*[173]* issued their decision in April 1996, noting that they were not being called on to analyze the compatibility of the CAA overall with WTO rules, or to review any other panel finding other than that under GATT Article XX(g).*[174]* Moreover, the AB struggled to produce a coherent finding on whether clean air was an exhaustible natural resource and whether the baseline measures regulated gasoline because Venezuela and Brazil had not appealed these findings.*[175]*

With respect to the narrow Article XX(g) rule, the AB noted that the panel had wrongly evaluated the Article III:4 compatibility rather than the conservation justification of the baseline measures per se. Moreover, the panel had improperly imported a "necessity" test from Article XX(b), when the required nexus between the means and end of the conservation measure under Article XX(g) is that the measure be "related to" (i.e. "primarily aimed at") conservation.*[176]* The AB did not give a particularly illuminating analysis of the clause "made effective in conjunction with restrictions on domestic production or consumption," other than to note that it would only

be in extreme cases that the AB would look to whether the policy was actually effective in the real world.[177]

The U.S. reiterated first the extreme difficulty it would have applying domestic enforcement practices overseas, and second the fact that Congress denied funding for individual baselines for importers. (Congress took this action after a State Department cable leaked showing that the Clinton administration had sought a deal where foreign refiners could have set their own baseline if Venezuela promised not to bring a GATT case.[178]) The AB took the first as an admission that the U.S. had not pursued "cooperative arrangements" with Brazil and Venezuela to enforce U.S. law extraterritorially, and noted on the second point that (under WTO law) the U.S. executive branch is responsible for the actions of the legislative branch. Finally, the AB turned a multifaceted point by the U.S. on its head. Quoting a lower panel paragraph that read:

> "The United States concluded that, contrary to Venezuela's and Brazil's claim, Article XX did not require adoption of the statutory baseline as a national standard even if the difficulties associated with the establishment of individual baselines for importers were insurmountable. Application of the statutory baseline to domestic producers of reformulated and conventional gasoline in 1995 would have been physically and financially impossible because of the magnitude of the changes required in almost all US refineries; it thus would have caused a substantial delay in the programme. Weighing the feasibility of policy options in economic or technical terms in order to meet an environmental objective was a legitimate consideration, and did not, in itself, constitute protectionism, as alleged by Venezuela and Brazil. Article XX did not require a government to choose the most expensive possible way to regulate its environment."

The AB chose to place emphasis on the passage "physically and financially impossible because of the magnitude of the changes required in almost all US refineries; it thus would have caused a substantial delay in the programme." The AB took this passage as evidence that the U.S. was considering the compliance costs of domestic firms but not foreign firms, and noted that this would have been sufficient evidence to find an Article III:4 violation. (It is unclear how to square this with the AB's earlier conclusion that the interpretive procedure under Article XX is not simply testing for compliance with the underlying GATT obligation (i.e. National Treatment).) But the AB could have just as easily placed emphasis on the last sentence: that governments shouldn't be required to regulate in the most costly way possible.

In any case, the AB concluded by upholding the lower panel conclusions that were not appealed and by finding that the CAA baseline measures were not excused by Article XX(g) because the U.S. had not met the requirements of the introductory paragraph (i.e. chapeau).

U.S. Compliance and its Opponents

The Clinton administration had taken a variety of steps to essentially ensure that the WTO ruling would come down the way it did. As noted above, the administration had sought a deal where foreign refiners could have set their own baseline if Venezuela promised not to bring a GATT case.[179] In congressional testimony in April, EPA and USTR officials claimed that the baseline rules were either protectionist or would be difficult to defend under the GATT.[180] It also

appeared to ignore exhortation from Sen. Barbara Mikulski (D-Md.), Rep. John Boehner (R-Ohio) and others to strongly defend the U.S. law.[181] The ruling was also strongly criticized by environmentalists and Sens. John Kerry (D-Mass.) and Ron Wyden (D-Ore.).[182]

After saying that the "the results of this dispute cannot and will not compromise this Administration's commitment to our environmental laws,"[183] the administration almost immediately following the AB ruling said that it would comply[184] over the objections of members of Congress like Sen. Conrad Burns (R-Mont.) and other agencies of the U.S. government.[185] Indeed, the official organization of air regulatory officials in eight Northeastern states wrote that allowing Venezuela's state oil company to set its own baselines would allow olefin content "over three times higher than the 9.2 percent baseline specified in the Clean Air Act, and would exceed the highest olefin content of any other gasoline marketed in the Northeast…. As a result, PDVSA gasoline could cause up to a 25 percent increase in emissions compared to NOx emissions from domestic fuels." Even Chevron wrote that international cooperative efforts would likely not be able to produce adequate verification mechanisms, and that "we do not believe that allowing foreign refiners to establish their own baselines is possible without harming air quality."[186]

The final 1997 rule allowed foreign refiner baselines, subject to the following conditions:

> "(1) in the case of a state-owned or operated refinery, that it waive any defense of sovereign immunity in civil, criminal, or administrative enforcement proceedings; and (2) in all cases, that the refiner (a) appoint an agent for the service of process in Washington, D.C.; (b) post a substantial bond to ensure payment of penalties in the event of its noncompliance; (c) commit to allowing EPA inspections and audits of all gasoline produced, regardless whether it is intended for the U.S. market; (d) submit to the jurisdiction of United States courts or administrative tribunals in any enforcement action; (e) implement detailed tracking and certification procedures to ensure its compliance with EPA regulations; and (f) procure independent third-party sampling and laboratory tests."[187]

Subsequently, the Independent Refiners Coalition (IRC) sued EPA over the new rules. The resulting court ruling from the Court of Appeals D.C. Circuit is illuminative in many respects, especially in showing the deference that U.S. courts show regulators – contrasted with the WTO panels.

First, the court ruled that – because the CAA has "citizen suit" provisions, which allow environmental groups and others to bring claims that the EPA is not acting quickly enough – refineries would have standing to bring a claim against the change to the baseline rules. Second, when evaluating the consistency of agency action with statute, U.S. courts apply the so-called Chevron analysis. In the first step, the court asks "whether Congress has directly spoken to the precise question at issue" – if so, "the court "must give effect to the unambiguously expressed intent of Congress." If not, courts will defer to the agency's interpretation so long as it is reasonable.

Second, IRC challenged the EPA's move as inconsistent with the CAA's statutory obligation to ensure air quality improvements, and that the EPA was considering factors other than air quality (like WTO compliance) in promulgating the 1997 provisions. Ironically, the Court of Appeals wrote that the incremental nature of the 1990 CAA amendments and their implementing regulations (described by a member of Congress as an attempt to avoid resurrection of a "1970's DOE type scheme of detailed government in intervention in U.S. gasoline markets") made the attainment of that goal less than certain. Moreover, under "Chevron step two," courts must be deferential to agency interpretation of the statute (which did not expressly limit the only goal to be furthered as that of improving air quality). The court then cited a precedent that "congressional statutes must be construed whenever possible in a manner that will not require the United States 'to violate the law of nations'" as support for the notion that the court should defer to the WTO in this case.

Third, IRC argued that the agency was behaving in an arbitrary and capricious manner by drawing distinctions between foreign refiners and others that could lead to disruptions in the oil markets. The court determined that EPA was permissible because it gave reasons for the new baselines based on "rational distinctions" on an emerging view of the cleanliness data, but admitted that imposing new regulations could lead to foreign refiners to seek non-U.S. markets for their gasoline (thereby undermining the supply of gasoline, something Congress was also attentive to but which was not addressed by the court).

The U.S. Court of Appeals decision is notable in demonstrating just how deferential U.S. courts are to executive and legislative branch prerogatives. Policymakers don't have to choose least or less trade-restrictive means of regulating or drawing distinctions, so long as they give reasons for their distinctions. Indeed, even compliance with treaties is a permissible reason for changing air quality standards. In contrast, WTO panels and the AB apply a set of rigid criteria that do not prioritize congressional prerogatives or agency discretion, and put trade impacts above other considerations. While the WTO would not defer to national regulators, U.S. courts (under the reasoning above) might defer to the WTO. Finally, while the CAA allows citizen suits (and U.S. courts recognize standing on that basis), neither Congress nor environmental groups are given a meaningful role at the WTO, which views all actions occurring in a country as often the responsibility of a single unitary actor.

Implications of U.S.-Gasoline

The U.S.-Gasoline case shows several WTO threats to CAA in the future. The U.S. failed to appeal most of these findings, meaning that they now stand largely as accepted WTO law.

The U.S. did not insist that domestic and imported products might be "unlike" if it were more costly or unwieldy to regulate imports. The U.S. might have also insisted that finding of "less favorable treatment" can't be found if the regulatory distinction is justified. Environmentalists had vigorously urged the administration to point out that if EPA found domestic refiners' 1990 data to be unverifiable, then they would face the same strictures as importers.[188] The WTO's opposite conclusion in the CAA has now become accepted practice across a range of WTO agreements.

The Article XX findings were also worrying. In the democratic process (and in the currently fashionable practice of subjecting regulations to cost-benefit analysis), it is normal to consider multiple regulatory options. Some inevitably are not selected, or are developed by one branch of government but rejected by another. However, under the WTO, governments that develop such a catalogue of alternative options can find their eventual decision second-guessed by international tribunals that don't have the same information or accountability with voters.

The AB finding was also worrying. In examining the U.S.' argument under Article XX(g), the AB could have as easily placed emphasis on the passage "Article XX did not require a government to choose the most expensive possible way to regulate its environment," which seems to capture the point of the U.S. argument on this score: the WTO should not be blind to the costs of regulating in a global economy. Instead, the AB ruled – as it has many times since – that any such regulatory distinctions (even those motivated by efforts to minimize enforcement costs) are almost always per se illegitimate.

The lack of findings on the TBT and other GATT rules leaves the CAA open to challenge, a possibility noted by the panel when it noted that it had not been asked to rule on the compatibility of the CAA overall.[189]

ENDNOTES

[1] Tucker is research director with Public Citizen's Global Trade Watch. He acknowledges the vital contributions of Jesse Swanhuyser, Kate Titus and Lori Wallach in finalizing this memo. Appendix I is based on a forthcoming publication by Swanhuyser.

[2] When the U.S. Congress debated the Uruguay Round Agreements Implementation Act in a lame-duck session in 1994, Rep. Peter DeFazio (D-Ore.) said: "This agreement will put at risk the environmental, food, consumer, health and safety laws of this Nation to something called a World Trade Organization, an organization that will settle disputes over trade barriers, and trade barriers is interpreted as anything that restricts the free movement of goods, whether it is restrictions against child labor, whether it is restrictions against dangerous substances in food and pesticides…. We are lowering ourselves to the worst standards, to the lowest common denominator, in order to get something that a few multinational corporations desperately want." Senator Robert Byrd (D-W.V.), a noted expert on the legislative process who recently passed, warned: "U.S. laws and State laws in many areas must comport first with the WTO's trade rules, or such laws can be challenged as an 'illegal trade barrier' by other countries. Federal and State laws dealing with toxics and hazardous waste, consumer protection, recycling and waste reduction, pesticides and food safety, energy conservation, wildlife protection, and natural resource and wilderness protection, would all be vulnerable to WTO challenge. The new GATT would prevent countries from rejecting products based on how they are made; for example, with child labor or with ozone depleting chemical processes…. If environmental laws get in the way of trade, they must fall. If consumer protection gets in the way, if standards of innumerable kinds, get in the way of trade, they go. Humane methods of trapping tuna, in order to protect dolphins go out the window. Flipper loses. Rigid pesticide controls which make products more expensive are GATT illegal. Out they go. Child labor laws restricting trade are illegal. Who cares? Only trade matters. What happens when our laws are declared a violation of GATT? The Administration would like us to accept the proposition that no U.S. laws are wiped out here, and technically they are not. What will happen is that other member nations, perhaps prodded, or even dominated by one or a group of multinational corporations, will bring a complaint against the U.S. before the WTO, and a Dispute Panel could rule in secret against a U.S. law, as being GATT illegal. The room for pernicious manufactured claims should be obvious to all of us. This puts great pressure on us to change our laws."

[3] See WTO, Agreement Establishing the World Trade Organization, Article XVI-4. See also NAFTA, Article 105. WTO rules require each country to "take such reasonable measures are may be available to it" to ensure subnational compliance. See WTO, Uruguay Round Agreement, "Understanding on the Interpretation of Article XXIV of the General Agreement on Tariffs and Trade 1994," at 13. Available at: http://www.wto.org/english/docs_e/legal_e/10-24_e.htm.

[4] See ICSID, Compañía de Aguas del Aconquija S.A. and Vivendi Universal S.A. v. Argentine Republic, Case No. ARB/97/3, AWARD, 20 August 2007. Available at: http://italaw.com/sites/default/files/case-documents/ita0215.pdf. See also MTD Equity Sdn. Bhd. and MTD Chile S.A. v. Republic of Chile, ICSID Case No. ARB/01/7, Award, 25 May 2004. Available at: http://italaw.com/sites/default/files/case-documents/ita0544.pdf

[5] The U.S. has signed BITs with 41 nations: Albania, Argentina, Armenia, Azerbaijan, Bahrain, Bangladesh, Bolivia, Bulgaria, Cameroon, Congo, Democratic Republic Of (Kinshasa), Congo, Republic Of (Brazzaville), Croatia, Czech Republic, Ecuador, Egypt, Estonia, Georgia, Grenada, Honduras, Jamaica, Jordan, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Mongolia, Morocco, Mozambique, Panama, Poland, Romania, Rwanda (which just went into effect in January 2012), Senegal, Slovakia, Sri Lanka, Trinidad & Tobago, Tunisia, Turkey, Ukraine, and Uruguay. The U.S. has signed FTAs with investment chapters with an additional 13 nations: Australia (although this does not contain investor-state), Canada, Chile, Colombia (not yet implemented), Costa Rica, El Salvador, the Dominican Republic, Guatemala, Korea (not yet implemented), Mexico, Nicaragua, Oman, and Singapore. Together, these two categories bring the total to 54 nations. (Note that the U.S. has signed FTAs that include an investor-state mechanism with three nations who also had BITs previously in place: Honduras, Morocco and Panama (not yet implemented). These are not double counted. Finally, the U.S. FTAs with Bahrain, Israel, and Jordan do not contain investment chapters, although the U.S. nonetheless has BITs with Bahrain and Jordan.)

[6] See comments by Gus Van Harten at: http://worldtradelaw.typepad.com/ielpblog/2011/06/is-investment-treaty-arbitration-biased-against-developing-countries.html#comments

[7] For example, primary National Ambient Air Quality Standards, which are set to protect public health, must be established with an adequate margin of error.

[8] CAA §202, 42 U.S.C.A. 7521 through 7590.

[9] Sec. 7411 (a)(3)

[10] Massachusetts v. EPA, 549 U.S. 497, 528–29 (2007).

[11] Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009). Available at: http://www.epa.gov/climatechange/endangerment.html
[12] 42 U.S.C. 7521(a).
[13] Coalition for Responsible Regulation v. EPA, D.C. Cir., No. 09-1322, 6/26/12, at 40.
[14] Model Year 2012-2016 Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards; Final Rule, 75 Fed. Reg. 25324 (May 7, 2010) (to be codified at 40 C.F.R. pts. 85, 86, 600 and 49 C.F.R. pts. 531, 533, 536–38). Available at: http://www.gpo.gov/fdsys/pkg/FR-2010-05-07/html/2010-8159.htm
[15] *Clean Air Act Handbook: A Practical Guide to Compliance* (20th Edition), § 5:36 at page 233.
[16] 25328
[17] EPA/NHTSA Notice of Proposed Rulemaking to Establish 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and CAFE Standards; Proposed Rules, Dec. 1, 2011. Available at: http://www.gpo.gov/fdsys/pkg/FR-2011-12-01/pdf/2011-30358.pdf
[18] Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles; Final Rule. Available at: http://www.gpo.gov/fdsys/pkg/FR-2011-09-15/pdf/2011-20740.pdf
[19] The majority of HD vehicles carry payloads of goods or equipment, in addition to passengers. To account for this in the regulatory program, the final rules set *fuel consumption* standards, rather than a *fuel efficiency*, or CAFE standard, as is the case in smaller cars and trucks.
[20] *EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium-and Heavy-Duty Vehicles*, Environmental Protection Agency/Office of Transportation and Air Quality, EPA-420-F-11-031 at page 1 (August 2011).
[21] Coalition for Responsible Regulation v. EPA, D.C. Cir., No. 09-1322, 6/26/12
[22] § 213(a)(4), 42 U.S.C. § 7547(a)(4) (providing that where EPA finds that emissions from non-road engines contribute significantly to pollution that endangers public health and welfare, the EPA "may promulgate . . . such regulations as the [EPA] Administrator deems appropriate containing standards applicable to emissions from those classes or categories of new nonroad engines and new nonroad vehicles which in the Administrator's judgment cause, or contribute to, such air pollution"); § 231(a)(2)(A), 42 U.S.C. § 7571(a)(2)(A) (providing that EPA "shall, from time to time, issue proposed emission standards applicable to the emission of any air pollutant from any class or classes of aircraft engines which in his judgment causes, or contributes to, air pollution which may reasonably be anticipated to endanger public health or welfare.")
[23] Ctr. for Biological Diversity v. Envtl. Prot. Agency, 794 F. Supp. 2d 151 (D.D.C. July 5, 2011).
[24] Ctr. for Biological Diversity v. Envtl. Prot. Agency, 794 F. Supp. 2d 151 (D.D.C. July 5, 2011).
[25] For more information, see http://www.epa.gov/oms/climate/ca-waiver.htm
[26] For a full list, see: http://yosemite.epa.gov/r9/r9nsps.nsf/ViewStandards?ReadForm&Part=60
[27] Coalition for Responsible Regulation v. EPA, D.C. Cir., No. 09-1322, 6/26/12, at 45-46.
[28] Coalition for Responsible Regulation v. EPA, D.C. Cir., No. 09-1322, 6/26/12, at 19.
[29] Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, Final Rule, 75 Fed. Reg. 31514, 31540 (June 3, 2010) (to be codified at 40 C.F.R. pts. 51, 52, 70, 71).
[30] Sindya Bhanoo, "The EPA Announces a New Rule on Polluters," New York Times, May 13, 2010. Available at: http://www.nytimes.com/2010/05/14/science/earth/14permit.html?ref=cleanairact See also: http://www.epa.gov/NSR/actions.html#may10
[31] Coalition for Responsible Regulation v. EPA, D.C. Cir., No. 09-1322, 6/26/12
[32] Petition from Humane Society to EPA, "Petition To List Concentrated Animal Feeding Operations Under Clean Air Act Section 111(B)(1)(A) Of The Clean Air Act, And To Promulgate Standards Of Performance Under Clean Air Act Sections 111(B)(1)(B) And 111(D)," Sept. 21, 2009. Available at:
Available at: http://www.humanesociety.org/assets/pdfs/farm/hsus-et-al-v-epa-cafo-caa-petition-final.pdf
[33] Center for Biological Diversity and 350.org, Petition to Establish National Pollution Limits for Greenhouse Gases Pursuant to the Clean Air Act (Dec. 2, 2009) at 15, <http://www.biologicaldiversity.org/programs/climate_law_institute/global_warming_litigation/clean_air_act/pdfs/Petition_GhG_pollution_cap_12-2-2009.pdf>. CBD has argued strongly for an NAAQS approach, under which EPA would have to:

1) Determine whether GhGs from stationary sources endangered public health and welfare;
2) If so, GhGs would become a criteria pollutant;
3) A NAAQS would have to be set on the maximum allowable concentration in the U.S. atmosphere of GhGs;

4) If the U.S. were below that level, the U.S. would be in attainment, and states would have to write state implementation plans (SIPs) showing how to maintain that level using BACT. EPA would then have to approve the SIPs.
5) If the U.S. were above that level, the U.S. would be in non-attainment, and states would have to write SIPs showing how NAAQS will be achieved. The SIPs would impose "reasonably available control technology" (RACT). The EPA has to approve the plans, and impose a federal plan if the states fail to act. The states would have 5 to 10 years to meet NAAQS, and sanctions (like withholding highway funds) can be imposed on a state if they fail to meet SIP.

[34] *See, e.g.*, "Petition for Rulemaking Under the Clean Air Act to List Coal Mines as a Source Category and to Regulate Methane and Other Harmful Air Emissions from Coal Mining Facilities Under Section 111," Earthjustice, on behalf of WildEarth Guardians, Center for Biological Diversity, the Environmental Integrity Project, and Sierra Club (June 16, 2010), *available at* http://www.biologicaldiversity.org/programs/climate_law_institute/global_warming_litigation/clean_air_act/pdfs/Coal_Mine_Petition-06-15-2010.pdf

[35] Deferral for CO_2 Emissions From Bioenergy and Other Biogenic Sources Under the Prevention of Significant Deterioration (PSD) and Title V Programs, 76 Fed. Reg. 43,490 (July 20, 2011) (to be codified at 40 C.F.R. pts. 51, 52, 70, 71).

[36] *Center for Biological Diversity v. EPA*. Consolidated Case Nos. 11-1101, 11-1285, 11-1328, 11-1336 (D.C. Cir. Apr. 7, 2011). To see the U.S. response to this petition from May 2012, see http://op.bna.com/env.nsf/id/fwhe-8ubkvv/$File/epa.biomass.pdf

[37] Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 76 Fed. Reg. 52,738, 52,756 (proposed Aug. 23, 2011) (to be codified at 40 C.F.R. pts. 60, 63).

[38] Portland Cement Ass'n v. E.P.A., 665 F.3d 177 (2011).

[39] Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources; Electric Utility Generating Units; Proposed Rule, 40 CFR Part 60 (April 13, 2012). Available at: http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2011-0660-0001

[40] Proposed Settlement Agreement, Clean Air Act Citizen Suit, 75 Fed. Reg. 82,392 (proposed Dec. 30, 2010).

[41] Kassie Siegel, Kevin Bundy, and Vera Pardee, "Strong Law, Timid Implementation: How the EPA Can Apply the Full Force of the Clean Air Act to Address the Climate Crisis," Journal of Environmental Law, April 2012, at 122-123.

[42] Massachusetts v. EPA, 549 U.S. 535-560 (2007).

[43] Nathan Richardson, Art Fraas and Dallas Burtraw, "Greenhouse Gas Regulation under the Clean Air Act," Resources for the Future Discussion Paper, April 2010. Citing Whitman v. American Trucking Associations, 531 U.S. 457 (2001).

[44] Kassie Siegel, Kevin Bundy, and Vera Pardee, "Strong Law, Timid Implementation: How the EPA Can Apply the Full Force of the Clean Air Act to Address the Climate Crisis," Journal of Environmental Law, April 2012, at 128.

[45] Kassie Siegel, Kevin Bundy, and Vera Pardee, "Strong Law, Timid Implementation: How the EPA Can Apply the Full Force of the Clean Air Act to Address the Climate Crisis," Journal of Environmental Law, April 2012, at 133-134.

[46] Kassie Siegel, Kevin Bundy, and Vera Pardee, "Strong Law, Timid Implementation: How the EPA Can Apply the Full Force of the Clean Air Act to Address the Climate Crisis," Journal of Environmental Law, April 2012, at 134-136.

[47] Nathan Richardson, Art Fraas and Dallas Burtraw, "Greenhouse Gas Regulation under the Clean Air Act," Resources for the Future Discussion Paper, April 2010, at 17. Citing Whitman v. American Trucking Associations, 531 U.S. 457 (2001).

[48] Andrew Green, "Climate change, regulatory policy and the WTO," *Journal of International Economic Law*, Volume 8:1, 2005, at 143-189.

[49] Victor Menotti, "G-8 Climate deal ducks looming clash with the WTO," International Forum on Globalization Brief, July 2007.

[50] Annex I of the TBT defines technical regulation as: "Document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method." Technical standard is defined as:

"Document approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method." See legal text at: http://wto.org/english/docs_e/legal_e/17-tbt_e.htm#annexI

[51] Appellate Body Report, *U.S. – Certain Country of Origin Labelling Requirements*, WT/DS384/AB/R and WT/DS386/AB/R, circulated 29 July 2012, at paras. 239, 249.

[52] Appellate Body, *U.S. – Measures Concerning the Importation, Marketing And Sale Of Tuna And Tuna Products*, WT/DS381/R, circulated 16 May 2012, paras 190-199. Available at: http://www.worldtradelaw.net/reports/wtoab/us-tunamexico%28ab%29.pdf

In this case, the AB placed emphasis on the fact that the truthfulness requirements are part of the labeling scheme themselves. But the ruling did not appear to ensure that basic truthfulness requirements (such as those administered by the Federal Trade Commission, USDA or other agencies) wouldn't also get caught in the net.

[53] The panel in *China-Publications* helpfully summarized the GATS schedule format: "The heading of each column reads: (i) sectors or sub-sectors; (ii) limitations on market access; (iii) limitations on national treatment; and (iv) additional commitments. In the second and third columns, inscriptions are made for each of the four modes of supply: cross-border, consumption abroad, commercial presence, and presence of natural persons, and may be taken in three forms: 'Unbound', 'None' and specified limitations, to indicate no, full and partial commitments. As part of the schedule format, there is a separate section at the beginning of a schedule where a Member may inscribe market access and national treatment limitations that apply to all scheduled sectors, unless otherwise specified. Inscriptions in this section are called 'horizontal commitments'." See Panel Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, WT/DS363/R and Corr.1, adopted 19 January 2010, as modified by Appellate Body Report WT/DS363/AB/R, at para. 7.920.

[54] The U.N. classification 883 "Subclass: 88300 - Services incidental to mining" is not defined in the U.N. code. The corresponding classification is ISIC Class: 1120 - Service activities incidental to oil and gas extraction excluding surveying. This class is explained as follows: "This class includes oil and gas field service activities provided on a fee or contract basis including: directional drilling and redrilling; 'spudding in'; derrick building, repairing and dismantling; cementing oil and gas well casings; pumping wells; plugging and abandoning wells; and other service activities." Unlike the GATT, the GATS lacks even a weak General Exception for the protection of natural resources. The United States has not limited its commitment to mining consulting services, as other countries have (GATS/SC/6). See: http://www.citizen.org/trade/forms/gats_results.cfm?s_id=121

[55] The WTO Secretariat highlighted the ambiguity of what this classification covers in its paper on energy services (S/C/W/52): "The CPC entry 'services incidental to energy distribution' (88700) and the relevant explanatory note deserve particular attention. The literal meaning of the title of this entry and in particular the word 'incidental' seem to refer to services such as consultancy, maintenance of the networks, reading of meters, etc. However, the explanatory note reads as follows: 'transmission and distribution services on a fee or contract basis of electricity, gaseous fuels and steam and hot water to households, industrial, commercial and other users.' This seems to include transport and distribution of electricity and gas, when these services are operated by an independent services supplier and not by a vertically integrated manufacturer."

[56] See: http://www.citizen.org/documents/gats_enviro_protectambiente_remed_noise.pdf . This sector is defined at the most granular level as: "Cleaning services of exhaust gases: Emission monitoring and control services of pollutants into the air, whether from mobile or stationary sources, mostly caused by the burning of fossil fuels. Concentration monitoring, control and reduction services of pollutants in ambient air, especially in urban areas."

[57] See: http://www.citizen.org/documents/gats_transport_roadmaint__pipeline.pdf

[58] Victor Menotti, "The Other War: Halliburton's Agenda at the WTO," IFG Report, June 2006. Available at: http://www.ifg.org/reports/WTO-energy-services.htm

[59] U.S.-Peru Trade Promotion Agreement, Article 10.28. At: http://www.ustr.gov/sites/default/files/uploads/agreements/fta/peru/asset_upload_file78_9547.pdf

[60] U.S.-Peru Trade Promotion Agreement, Article 10.28. At: http://www.ustr.gov/sites/default/files/uploads/agreements/fta/peru/asset_upload_file78_9547.pdf

[61] Appellate Body Report, *European Communities – Regime for the Importation, Sale and Distribution of Bananas*, WT/DS27/AB/R, adopted 25 September 1997, DSR 1997:II, 591, at para. 220.
[62] The only carve-out from this broad scope is found in Article I(3)(c) for a "service supplied in the exercise of governmental authority" defined as "any service which is supplied neither on a commercial basis, nor in competition with one or more service suppliers." This does not mean that, for instance, central bank actions are not reviewable under the GATS – merely that respondents cannot invoke the GATS in order to displace the role of the central bank.
[63] Appellate Body Report, *U.S.-Clove Cigarettes*, at para 112.
[64] Appellate Body Report, *U.S.-Clove Cigarettes*, at para 137.
[65] Appellate Body Report, *U.S.-Clove Cigarettes*, at paras 137, 144.
[66] Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/R, adopted 20 May 1996, as modified by Appellate Body Report WT/DS2/AB/R, DSR 1996:I, 29, at paras. 6.11-6.13.
[67] Appellate Body, *U.S. – Tuna II*, at paras 251-281.
[68] Appellate Body Report, *U.S.-Clove Cigarettes*, at para 115.
[69] Panel Report, *Canada-Autos*, para. 10.304.
[70] Appellate Body Report, *EC-Bananas III*, at para. 234.
[71] Appellate Body Report, *EC-Bananas III*, at para. 241.
[72] The Clean Air Act was originally enacted in 1963, and was substantially amended several times, including in 1990. Under the scheme as amended, the U.S. market for gasoline was divided into metropolitan and non-metropolitan areas. In the former, due to concerns with summertime ozone pollution, only "reformulated gasoline" could be sold. In the latter, conventional gasoline could be sold, subject to certain rules. Reformulated gasoline was defined as having low oxygen and benzene content, and no heavy metals such as lead. Moreover, gasoline must have a 15 percent reduction in emissions of toxics and volatile organize compounds, and no increase in emissions of nitrogen oxides. (After 2000, the CAA required a 20-25 percent reduction in such emissions.) In addition, the legislation spelled out anti-dumping rules, so that refiners, importers and blenders would only sell conventional gasoline that was as clean as that entity's 1990 levels. In instances where adequate and reliable data on 1990 gasoline was not available, EPA could apply a statutory baseline.

In February 1994, EPA published its final regulations implementing the 1990 amendments.

> - *Baselines:* Domestic refiners were required to establish individual 1990 baselines based on precise quality data and volume records (Method 1), blendstock quality data and production records (Method 2), or a modeling exercise based on available data (Method 3). Importers-foreign refiners that sold at least 75 percent of their gasoline into the U.S. faced similar rules. However, refineries that were not in operation for most of 1990, and importers and blenders, were generally assigned the statutory baseline. EPA justified this because of the difficulty in ascertaining the truthfulness or appropriateness of records in these situations.
> - *Reformulated gasoline:* Over 1995-1998, gasoline had to comply with a "Simple Model" consisting of either individual or statutory baselines. After 1998, a "Complex Model" will apply across the board and no individual baselines would be utilized.
> - *Conventional gasoline:* The so-called "non-degradation" requirement would apply to most domestic refineries on the basis of their individual baseline, whereas most importers faced the statutory baseline. However, all gasoline produced in excess of an individual entity's 1990 levels faced the statutory baseline.

For an overview of these changes, see Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/R, adopted 20 May 1996, at paras. 2.1-2.13. available at: http://www.worldtradelaw.net/reports/wtopanelsfull/us-gasoline%28panel%29%28full%29.pdf
[73] Panel Report, U.S.-Gasoline, at paras. 3.11-3.33.
[74] Panel Report, U.S.-Gasoline, at para. 6.10.
[75] Panel Report, U.S.-Gasoline, at paras. 6.11-6.16.
[76] Appellate Body Report, *U.S. – Measures Concerning the Importation, Marketing And Sale Of Tuna And Tuna Products*, WT/DS381/R, circulated 16 May 2012, at paras. 234-235; Panel Report, *U.S. – Certain Country of Origin Labeling Requirements*, WT/DS384/R and WT/DS386/R, circulated 18 November 2011, at paras. 7.333-350.
[77] Appellate Body Report, *U.S.-COOL*, at para. 262, among others.
[78] Panel Report, *Canada – Certain Measures Affecting the Automotive Industry*, WT/DS139/R, WT/DS142/R, adopted 19 June 2000, as modified by Appellate Body Report WT/DS139/AB/R, WT/DS142/AB/R, DSR 2000:VII, 3043, at para. 10.248.

[79] *S.D. Myers v. The Government of Canada* [UNCITRAL, NAFTA Final Award on the Merits (November 13, 2000) para. 251]
[80] ADM v. Mexico, ICSID CASE No. ARB(AF)/04/05, (Nov. 21, 2007), at para. 203, 205.
[81] ADM v. Mexico, ICSID CASE No. ARB(AF)/04/05, (Nov. 21, 2007), at para. 208.
[82] Siemens A.G. v. Argentine Republic, ICSID Case No. ARB/02/8, Award, paras. 320-321 (Feb. 6, 2007). "Whether intent to discriminate is necessary and only the discriminatory effect matters is a matter of dispute. In *S.D. Myers*, the tribunal considered intent "important" but not "decisive on its own." On the other hand, the tribunal in *Occidental Exploration and Production Company v. Republic of Ecuador* found intent not essential and that what mattered was the result of the policy in question. The concern with the result of the discriminatory measure is shared in *S.D. Myers*: "The word 'treatment' suggests that practical impact is required to produce a breach of Article 1102, not merely a motive or intent." The discriminatory results appear determinative in *Marvin Roy Feldman Karpa v. United Mexican States*, where the tribunal considered different treatment on a *de facto* basis to be contrary to the national treatment obligation under Article 1102 of NAFTA… The Tribunal concurs that intent is not decisive or essential for a finding of discrimination, and that the impact of the measure on the investment would be the determining factor to ascertain whether it had resulted in non-discriminatory treatment."
[83] Panel Report, *Canada – Autos*, at para. 10.307. "In our view, it is reasonable to consider for the purposes of this case that services supplied in Canada through modes 3 and 4 and those supplied from the territory of other Members through modes 1 and 2 are 'like' services. In turn, this leads to the conclusion that the CVA requirements provide an incentive for the beneficiaries of the import duty exemption to use services supplied within the Canadian territory over 'like' services supplied in or from the territory of other Members through modes 1 and 2, thus modifying the conditions of competition in favour of services supplied within Canada. Although this requirement does not distinguish between services supplied by service suppliers of Canada and those supplied by service suppliers of other Members present in Canada, it is bound to have a discriminatory effect against services supplied through modes 1 and 2, which are services of other Members."
[84] Panel Report, *China-Publications*, at para. 7.975.
[85] Panel Report, U.S.-Taxes on Automobiles, Oct. 11, 1994.
[86] Appellate Body Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WT/DS285/AB/R, adopted 20 April 2005, DSR 2005:XII, 5663 (Corr.1, DSR 2006:XII, 5475), *at* para. 230.
[87] USTR, *China – Certain Measures Affecting Electronic Payment Services*, U.S. First Written Submission, Sept. 13, 2011, at para 3. Available at: http://www.ustr.gov/webfm_send/3062. See also, USTR, *China – Payments*, U.S. Second Written Submission, at para 143.
[88] Panel Report, *China – Certain Measures Affecting Electronic Payments Services*, July 16, 2012.
[89] Panel Report, *European Communities – Trade Description of Sardines*, WT/DS231/R and Corr.1, adopted 23 October 2002, as modified by Appellate Body Report WT/DS231/AB/R, DSR 2002:VIII, 3451, at paras. 7.78, 7.90.
[90] Panel Report, EC-Sardines, at para. 7.138.
[91] Appellate Body Report, *European Communities – Trade Description of Sardines*, WT/DS231/AB/R, adopted 23 October 2002, DSR 2002:VIII, 3359, at para 243, 245-247.
[92] Appellate Body Report, EC-Sardines, at para 248, 257.
[93] Appellate Body, US-Gasoline, at pages 13-20.
[94] See the discussion of the necessity test at Appellate Body Report, *Brazil – Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R, adopted 17 December 2007, DSR 2007:IV, 1527, at paras. 139-183.
[95] Todd Tucker, "WTO is the big kid on the seesaw," Eyes on Trade Blog, September 21, 2011. Available at: http://citizen.typepad.com/eyesontrade/2011/09/wto-is-the-big-kid-on-the-seesaw.html While Article XIV(d) appears to offer a substantial carve-out for taxation, note that this is only for direct taxes, not "event" or indirect taxes like CMTs or financial transaction taxes.
[96] Appellate Body Report, *U.S.-Gambling*, at para. 369.
[97] Appellate Body Report, *U.S.-Clove Cigarettes*, at para.182.
[98] Appellate Body Report, *U.S.-COOL*, at para. 347.
[99] Appellate Body Report, *U.S. – Tuna II*, at para. 286.
[100] Appellate Body Report, *U.S.-COOL*, at para. 371-372, 408.
[101] Appellate Body Report, *U.S.-COOL*, at para. 370, 444-453.
[102] Appellate Body Report, *U.S.-COOL*, at para. 375, 381, 477.
[103] Appellate Body Report, *U.S.-COOL*, at para. 376, 480-490.
[104] Appellate Body Report, *U.S.-COOL*, at para. 373, 466-468, 479.

[105] Appellate Body Report, *U.S.-COOL*, at para. 376, 483, 486, 490.
[106] Appellate Body Report, *U.S.-COOL*, at para. 377, 478.
[107] Appellate Body Report, *U.S.-COOL*, at para. 377.
[108] Appellate Body Report, *U.S.-COOL*, at para. 374.
[109] Panel Report, U.S.-Gasoline, at paras. 3.79-3.83.
[110] U.S.-Peru Trade Promotion Agreement, Annex 10-B. At: http://www.ustr.gov/sites/default/files/uploads/agreements/fta/peru/asset_upload_file78_9547.pdf
[111] See Public Citizen summary of NAFTA investor-state cases at: http://www.citizen.org/documents/investor-state-chart-april-2011.pdf
[112] ICSID Award, Railroad Development Corporation (RDC) v. Guatemala, ARB/07/23, 29 June 2012, at para. 122, 216-218, 221, 233-235 Available at: http://italaw.com/sites/default/files/case-documents/ita1051.pdf For instances of Guatemalan investors being subject to the *lesivo* procedure, see: http://portaldace.mineco.gob.gt/sites/default/files/unidades/DefensaComercial/Casos/Controversias/Inversionista%20-%20Estado/Etapa%20de%20Meritos%2007-23%20%28Ferrovias%29/Respondent%20Exhibits/R-308%20%28ENG%29.pdf
[113] ICSID Award, El Paso Energy International Company v. Argentina, ARB/03/15, 31 Oct. 2011. Available at: http://italaw.com/documents/El_Paso_v._Argentina_Award_ENG.pdf
[114] For a general background on how the annex was added to address criticisms arising from the experience under NAFTA, and how ultimately these critics were not satisfied, see: "States, Cities Flag Problems with DR-CAFTA Investment Provisions," *Inside U.S. Trade*, April 22, 2005.
[115] ICSID Award, RDC v. Guatemala, at para. 216.
[116] Award, Before the Arbitral Tribunal constituted Under Chapter 11 of the North American Free Trade Agreement, *Metalclad Corporation v. the United Mexican States*, International Centre for Settlement of Investment Disputes (Additional Facility), Aug. 25, 2000, at 32-35.
[117] United States Model Bilateral Trade Agreement, Annex B-4(a), United States Department of State, 2004. http://www.state.gov/documents/organization/117601.pdf at 38
[118] "States, Cities Flag Problems with DR-CAFTA Investment Provisions," *Inside U.S. Trade*, April 22, 2005;
[119] J. Peter Byrne, "Ten Arguments for the Abolition of the Regulatory Takings Doctrine," *Ecology Law Quarterly*, 22, 1995; Vicki Been and Joel Beauvais, "The Global Fifth Amendment? Nafta's Investment Protections and the Misguided Quest for an International 'Regulatory Takings' Doctrine," *New York University Law Review*, April 2003, Available at SSRN: http://ssrn.com/abstract=337480; Jeeyeop Kim, "National Chaos?: Would the Indirect Expropriation Provisions of the Korea-US FTA Destroy the Korean Land Use System," unpublished paper, 2008. Available at: http://works.bepress.com/jeeyeop_kim/
[120] See Eduardo Moisès Peñalver, Is Land Special? 31 Ecology L.Q. 227, 231 (2004) ("it is almost beyond dispute that . . . the [Supreme] Court has focused overwhelmingly on regulations affecting land and that landowners bringing regulatory takings claims stand a greater chance of prevailing in the Supreme Court than the owners of other sorts of property"); Molly S. McUsic, The Ghost of Lochner: Modern Takings Doctrine and Its Impact on Economic Legislation, 76 B.U. L. Rev. 605, 647, 655 (1996) ("Economic interests, such as personal property, trade secrets, copyright, and money, are all recognized by the Court as 'property' under the Fifth Amendment, but receive little protection against government regulation.") J. Peter Byrne, Ten Arguments for the Abolition of Regulatory Takings Doctrine, 22 Ecology L.Q. 89, 127 (1995) ("the Supreme Court has shown absolutely no interest in applying the regulatory takings doctrine to assets other than land"). Taken from: Sierra Club, Public Citizen, et. al. "Investment Rules in Trade Agreements: Top 10 Changes to Build a Pro-Labor, Pro-Community and Pro-Environment Trans-Pacific Partnership," Aug. 9, 2010. Available at: http://www.citizen.org/documents/InvestmentPacketFINAL.pdf
[121] Lucas v. South Carolina Coastal Comm'n, 505 U.S. 1003, 1027-28 (1992). The Supreme Court's decision in Ruckelshaus v. Monsanto Co., 467 U.S. 986 (1984), which involved a claim that the disclosure of trade secrets by the federal government constituted a taking, is sometimes cited as an example of the application of the regulatory takings analysis outside the context of real property. The Court in Monsanto, however, stressed that "[w]ith respect to a trade secret, the right to exclude others is central to the very definition of the property interest. Once the data that constitute a trade secret are disclosed to others, or others are allowed to use those data, the holder of the trade secret has lost his property interest in the data." Monsanto, 467 U.S. at 1012. Accordingly, "Monsanto is a case in which the government conduct in question was the functional equivalent of a direct appropriation of the entire piece of property, as opposed to a mere regulation of that property." Eduardo Moisès Peñalver, Is Land Special? 31 Ecology L.Q. 227, 231, n. 20 (2004). Taken from: Sierra Club, Public Citizen, et. al. "Investment Rules in Trade

Agreements: Top 10 Changes to Build a Pro-Labor, Pro-Community and Pro-Environment Trans-Pacific Partnership," Aug. 9, 2010. Available at: http://www.citizen.org/documents/InvestmentPacketFINAL.pdf

[122] Andrew Newcombe, The Boundaries of Regulatory Expropriation in International Law, 20:1 ICSID Review – FILJ at 4 (2005) (noting that "under the 'orthodox approach' [a regulatory] expropriation occurs when a foreign investor is deprived of the use, benefit, management or enjoyment of all or substantially all of its investment" rather than whether the government has actually appropriated the investment for its own use). Taken from: Sierra Club, Public Citizen, et. al. "Investment Rules in Trade Agreements: Top 10 Changes to Build a Pro-Labor, Pro-Community and Pro-Environment Trans-Pacific Partnership," Aug. 9, 2010. Available at: http://www.citizen.org/documents/InvestmentPacketFINAL.pdf

[123] See A.J. Van der Walt, Constitutional Property Clauses: A Comparative Analysis (1999) at 17 ("the distinction between police-power regulation of property and eminent-domain expropriation of property is fundamental to all [constitutional] property clauses, because only the latter is compensated as a rule. Normally, the will be no provision for compensation for deprivations or losses caused by police-power regulation of property.") United States law is an exception in this regard, and under certain circumstances – most notably in the "rare circumstance" when a regulatory measure destroys all value of real property – requires compensation even when there has been no appropriation of the property by the government. See Lucas v. South Carolina Coastal Comm'n, 505 U.S. 1003 (1992). Taken from: Sierra Club, Public Citizen, et. al. "Investment Rules in Trade Agreements: Top 10 Changes to Build a Pro-Labor, Pro-Community and Pro-Environment Trans-Pacific Partnership," Aug. 9, 2010. Available at: http://www.citizen.org/documents/InvestmentPacketFINAL.pdf

[124] ICSID Award, RDC v. Guatemala, at para. 151.

[125] Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule, 75 FR 25324 at 25333 (May 10, 2010) (to be codified at 40 C.F.R. pts. 85, 86, 600 and 49 C.F.R. pts. 531, 533, 536–38).

[126] Id. at 25333-38.

[127] Id. at 25414-15.

[128] Id. at 25415.

[129] Id. at 25416.

[130] Porsche commented that their passenger car footprint-based standard is the most stringent of any manufacturer and this, combined with their high baseline emissions level, means that it would need to reduce emissions by about 10 percent per year over the 2012-2016 time-frame.

[131] 75 FR 25324 at 25419.

[132] Id.

[133] 75 FR 25324 at 25420.

[134] *See* 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards; Proposed Rule at 76 FR 74854 at 74989 (proposed Dec. 1, 2011).

[135] 13CFR121.201

[136] 75 FR 25324 at 25424.

[137] Id.

[138] Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles; Final Rule, 76 FR 57106 at 57162 (Sept. 15, 2011).

[139] Id. at 57167

[140] Id. at 57165

[141] Id. at 57168

[142] Id. at 57122

[143] Id. at 57144 (The rule, at least as far as the tractor rule applies to a very limited set of regulated entities. "[T]he agencies found that a large majority of the HD diesel engines…were relatively close to the average baseline, with some above and some below…")

[144] Id. at 57141

[145] Id. at 57144

[146] Id. ("Volvo, DTNA, environmental groups, NGOs, and the New York State Department of Environmental Conservation opposed the optional engine standard, arguing that existing flexibilities are sufficient to allow compliance with the standards and that all manufacturers should be held to the same standards." Further, commenters argued that such an alternative standard could allow "legacy engine" manufacturers to game the system and/or gain competitive advantage over producers subject to the principal standards.)

[147] Id. at 57134

[148] For an overview of these changes, see Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/R, adopted 20 May 1996, at paras. 2.1-2.13. available at: http://www.worldtradelaw.net/reports/wtopanelsfull/us-gasoline%28panel%29%28full%29.pdf
[149] Panel Report, *United States – Gasoline*.
[150] Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R, adopted 20 May 1996, DSR 1996:I, 3.
[151] *See Final Rule: Regulation of Fuels and Fuel Additives: Baseline Requirements for Gasoline Produced By Foreign Refiners* 62 Fed.Reg. 45,533 (codified at 40 C.F.R. pt. 80).
[152] George E. Warren Corp. v. U.S. E.P.A., 159 F.3d 616 (1998). Available at: http://law.justia.com/cases/federal/appellate-courts/F3/159/616/616743/
[153] Panel Report, U.S.-Gasoline, at paras. 3.5-3.10.
[154] Panel Report, U.S.-Gasoline, at paras. 3.11-3.33.
[155] Panel Report, U.S.-Gasoline, at paras. 3.34-3.36.
[156] Panel Report, U.S.-Gasoline, at para. 3.42.
[157] Panel Report, U.S.-Gasoline, at para. 3.51.
[158] Panel Report, U.S.-Gasoline, at paras. 3.55-3.57.
[159] Panel Report, U.S.-Gasoline, at paras. 3.58-3.66.
[160] Panel Report, U.S.-Gasoline, at paras. 3.67-3.70.
[161] Panel Report, U.S.-Gasoline, at paras. 3.71-3.72.
[162] Panel Report, U.S.-Gasoline, at para. 3.77.
[163] Panel Report, U.S.-Gasoline, at paras. 3.79-3.83.
[164] "GATT Panel to Hear Venezuelan Complaint Against Clean Air Rules," Inside U.S. Trade, Oct. 7, 1994.
[165] Nationalities of the panelists were taken from Steve Charnovitz, ""*The WTO Panel Decision on U.S. Clean Air Act Regulations*," International Environment Reporter, March 6, 1996. Available at: http://www.charnovitz.org/Clean.htm
[166] Panel Report, U.S.-Gasoline, at para. 6.5.
[167] Panel Report, U.S.-Gasoline, at para. 6.9.
[168] Panel Report, U.S.-Gasoline, at para. 6.10.
[169] Panel Report, U.S.-Gasoline, at paras. 6.11-6.16.
[170] Panel Report, U.S.-Gasoline, at paras. 6.22-6.29.
[171] "Administration Appeals WTO Decision on U.S. Gasoline Regulations," Inside U.S. Trade, Feb. 23, 1996.
[172] "U.S. Criticizes Narrow Reading of GATT Exemption in Gas Panel Appeal," Inside U.S. Trade, March 8, 1996.
[173] Biographies available at: http://www.wto.org/english/tratop_e/dispu_e/ab_members_bio_e.htm
[174] Appellate Body, US-Gasoline, at page 9 and 14.
[175] Appellate Body, US-Gasoline, at pages 10-12.
[176] Appellate Body, US-Gasoline, at pages 13-20.
[177] Appellate Body, US-Gasoline, at pages 21-22.
[178] "House Likely to Block New Gas Rule, Open Door to GATT Challenge," Inside U.S. Trade, Sept. 2, 1994.
[179] "House Likely to Block New Gas Rule, Open Door to GATT Challenge," Inside U.S. Trade, Sept. 2, 1994.
[180] "Venezuela Vows GATT Challenge Following House Vote on Gas Rules," Inside U.S. Trade, Sept. 16, 1994.
[181] "Lawmakers Urge USTR to Strongly Defend Venezuela Gas Rule Challenge," Inside U.S. Trade, Nov. 4, 1994.
[182] "Senators, Green Groups Blast Report of WTO Environmental Committee," Inside U.S. Trade, Dec. 13, 1996.
[183] "Kantor Likely to Appeal Adverse WTO Panel Ruling on Gasoline," Inside U.S. Trade, Jan. 19, 1996; "Kantor Says U.S. Compliance with WTO Panel Not Under Consideration," Inside U.S. Trade, Jan. 26, 1996.
[184] "US Loses Appeal but Wins Broader Scope for Green Exemption," Inside U.S. Trade, May 3, 1996; "U.S. Leaning Toward Changing Gas Rules to Comply with WTO Panel," Inside U.S. Trade, June 7, 1996.
[185] "Administration Agrees to Comply with WTO Gas Panel by Next August," August 16, 1996; "Eizenstat Cites 'Very Basic Change' in U.S. Approach to Trade with LDCs," Inside U.S. Trade, Nov. 22, 1996.
[186] "Refiners Suggest Giving Importers Equal Treatment to Settle Gas Fight," Inside U.S. Trade, Oct. 18, 1996.
[187] Cited in George E. Warren Corp. v. U.S. E.P.A., 159 F.3d 616 (1998).
[188] "Environmentalists Seek Strong Defense to Venezuela WTO Challenge," Inside U.S. Trade, May 19, 1995.
[189] Panel Report, U.S.-Gasoline, at para. 7.1.