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Limiting Greenhouse Gas Emissions Through Emissions Trading: An Interim Report

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Greenhouse Gas Emissions Trading and the WTO Subsidies Agreement

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SUMMARY

The H. John Heinz III Center for Science, Economics and the Environment has gathered a prominent group of policy analysts to consider how the United States might implement its Kyoto commitment, using tradable permits in tandem with other methods. The draft report of the group, entitled *Limiting Greenhouse Gas Emissions Through Emissions Trading: Interim Report,* examines four policy options. This Memorandum considers whether any of these options appear likely to conflict with United States international trade obligations under the newly established Uruguay Round Agreement Establishing the World Trade Organization ('WTO Agreement').

This summary outlines the relevant law and summarizes my conclusions on the WTO issues raised by the options. The full analysis supporting those conclusions is contained in the Memorandum that follows.

The principal WTO issues raised by the Interim Report are: (1) whether the product standards envisioned by Options I, III and IV provide national (non-discriminatory) treatment to foreign products; and (2) whether the grant of free permits under the cap-and-trade schemes of Options I, III and IV would comprise an 'actionable subsidy' under the WTO Agreement on Subsidies and Countervailing Measures (Subsidies Agreement).[2]

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[2] The United States, historically, has been the main user of the Subsidies Agreement (and its WTO predecessors). Other countries are much less active as plaintiffs in the field of subsidies. This, coupled with the 'halo effect' of the climate change issue, might shelter all the options described in the Interim Report from any subsidies challenge. That happy result should not be assumed, however. Three of the options described in the Report are clearly designed to 'compensate' U.S. industry. Moreover, the activity level of other countries is rising, and 'climate change' policies that come to be regarded as cloaks for disguised protection will not only enjoy no halo effect, they might well trigger a backlash. Finally, it will be seen that many of the straight and narrow doctrinal positions previously advocated by the United States in its capacity as a subsidy plaintiff (and advocate of stricter disciplines) could come back to haunt the United States in defending various climate change strategies from subsidies challenge.

This Memorandum concludes that U.S. product standards imposing minimum mileage or energy efficiency requirements for products -- be they cars, trucks, refrigerators, or air conditioners -- are not likely to raise WTO concerns so long as they are crafted in a way that does not discriminate against imported products.[3] The more difficult issue is whether and under what circumstances the grant of free permits under Options I, III and IV would constitute an actionable subsidy.

The WTO Subsidies Agreement defines an 'actionable subsidy' as (1) a non-*de minimis* 'financial contribution' that (2) is bestowed on 'specific' enterprises or industries; and (3) causes or threatens 'injury' or 'serious prejudice' to foreign manufacturers of like products.

A 'financial contribution', for our purpose, is a government practice analogous to a direct transfer of funds. The contribution is non-*de minimis* if it yields, directly or indirectly, a benefit that is greater than 1 percent of the receiving firm's total sales of all products or, if the subsidy is limited to certain products, 1 percent of the firm's total sales of the subsidized products. Here, the 'financial contribution' derives from the fact that 'surplus' permits – those not needed to meet regulatory operating requirements – can be sold for cash. The fact that the cash derives from non-governmental third parties is irrelevant – indirect subsidies are subsidies. The fact that a subsidy is received as partial compensation for much higher fuel costs and/or fuel conversion costs or other regulatory compliance costs is likewise irrelevant: with one small exception not applicable here, the Subsidies Agreement treats subsidies for regulatory compliance just like any other subsidy. Moreover, except in the special case of upstream subsidies as described below, it makes no difference whether the receiving firm uses the subsidy to lower prices and expand market share at the expense of foreign competitors, or whether it simply returns the subsidy as rent to employees, management or shareholders. So permits are a financial contribution to the extent that they are surplus to operating needs. This Memorandum argues, however, that only 'surplus' permits are a financial contribution. Permits issued and used to support on-going operations are more appropriately classified as regulatory instruments – they calibrate the degree of emissions reduction required – rather than subsidies.

[3]A GATT dispute panel recently upheld a U.S. standards law closely analogous to the standards schemes discussed in the Interim Report, even though the standard was crafted in a way that burdened foreign producers, *de facto*, more heavily than their U.S. rivals. General Agreement On Tariffs and Trade: United States -- Taxes on Automobiles, DS 31/R, Sept. 29, 1994. While that decision is not a binding precedent, it does suggest that the scrutiny given to facially neutral product standards is likely to be fairly lenient. The safest course, obviously, is to avoid regulations which have any differential and adverse impact on imports.

The 'specificity' requirement of the Subsidies Agreement is needed to avoid the absurdity of holding generally available subsidies (like roads, bridges, schools, tax deductions, etc.) actionable under the WTO. The specificity doctrine thus holds that subsidies made available, and used, economy-wide are non-specific, while those confined (*de jure* or *de facto*) to a single industry or enterprise are specific. What is unclear is whether subsidies made available to, and used by, several large industry groups – but not the whole economy – would be considered specific. We know that the question would be analyzed in two parts: (1) is a 'small' number of enterprises or industries *legally eligible* for the subsidies (*de jure* specificity); and if not, (2) does a 'small' number of enterprises or industries *disproportionately use* the subsidies (*de facto* specificity). We know that subsidies need not be made available economy-wide in order to be non-specific: the U.S. has repeatedly held, for example, that subsidies to the 'agricultural sector' are *de jure* non-specific due to the wide variety of products encompassed in that sector. We also know, from the precedents, that there appears to be an inter-play between enterprise numericity and industry diversity: subsidies made available to a large number of firms in a single (or two) industries will be considered specific; subsidies extending to only a few firms in different industries are also likely to be deemed specific; but subsidies extending to a large number of firms spanning a wide variety of different industries are likely to be deemed non-specific, unless a few firms or industries receive a disproportionate share of the benefits. In the last analysis, however, confident predictions are hard to make: both the WTO Agreement and U.S. doctrine and practice are intentionally vague on what is a 'small' number of firms or industries; specificity determinations in intermediate situations (such as ours) are made case-by-case and without clear guidelines.

The 'injury' and 'serious prejudice' tests are a 'rule of reason' for subsidies law. They hold that importing governments may not take action against subsidized products that do not cause or threaten 'injury' to competing manufacturers in their own market; nor may they complain of subsidies that do not cause or threaten 'serious prejudice' to competitors in the exporting country market or in third-country markets. Note the difference in formulation: 'injury' may be caused by subsidized products (regardless of the margin of subsidy); serious prejudice must result from the impact of the subsidy itself (in which case the margin of subsidy is likely to be relevant). In both cases, the indicia of harm are similar: price cutting and/or market share expansion (or retention) beyond that which would occur without the subsidy/subsidized import. Because of the highly fact-specific nature of the injury and serious prejudice determinations, they are very difficult to predict in the abstract. Most of the legal analysis of this Memorandum will thus focus on the application of the first two requirements.

Option I features a tradable permits scheme and a series of energy efficiency product standards. The permit scheme would cap aggregate emissions from large U.S. stationary fossil fuel combustors (e.g. facilities using boilers of greater than 100 million Btus/hour or consuming more than 1,000 tons of coal per year). The cap would be set at 510 million tons of carbon (MtC) per year, distributed among covered sources according to each source's pro rata share of carbon emissions in some baseline year, such as 1990. Under the formula, it is expected that 375 MtC would be allocated to electricity generators. The remaining 135 MtC would be allocated among a variety of industrial combustors that meet the 'large source' criteria: petroleum products and petrochemicals, basic organic and inorganic chemicals, pesticides, fertilizers, pharmaceuticals, paints, adhesives, soaps and cleaning compounds, pulp and paper and paper products, resins, synthetic rubber and man-made fibers, primary metals, and cement, glass, bricks, lime and other stone and ceramic products. New large sources (those constructed after the baseline year) would receive no permits. Sources would be free to buy and sell permits as needed to support their operations, but all sources, new and old, would be required to hold one permit for every ton of carbon emitted, and that permit would be consumed by the emission of that ton. The permit scheme would cover only U.S. manufacturers. Assuming, as the Interim Report does, that permits would be valued at $75 each, the total value of *all* permits issued to electricity generators and large industrial combustors would be $28 billion and $10 billion, respectively.

The key issue raised by Option I is whether it will bestow non-*de minimis* subsidies on 'specific' enterprises and industries causing injury or serious prejudice to foreign competitors. Option I makes a large number and wide variety of sources *eligible* for permits: it is unlikely to be deemed *de jure* specific. To the extent that Option I distributes 'surplus' permits relatively thinly and widely across the categories of eligible users, it seems most unlikely that Option I will yield either *de facto* specific or greater than *de minimis* subsidies. (Remember, most sources that continue in full operation will receive far fewer permits than they need to support even baseline year sales under traditional manufacturing methods: any 'surpluses' they achieve will likely be rather meager in relation to their overall production levels.) Thus, the principal way that Option I could lead to subsidies trouble is if it allocates permits in a way that has the effect of focusing a large number and the predominant share of 'surplus' permits on relatively few firms and/or industries. Such a concentration of large surpluses would lead to a finding of *de facto* specificity and would increase the likelihood of non-*de minimis* subsidies. There are two ways such a concentration might come about in practice. First, Option I appears to award permits on the basis of historic emissions, rather than on the basis of sources' estimated potential for *future* emissions reduction.

This increases the likelihood of concentrating substantial surpluses among those lucky firms/industries that happen to enjoy abundant, low-cost emissions reductions opportunities. Second, Option I as written appears to contemplate that sources made eligible for permits as a result of their emissions in the baseline year will continue to accrue permits for their owners even if the source is later closed or radically downsized. Such a rule will virtually ensure the accrual of significant, potentially actionable subsidies for owners who close or downsize covered U.S. manufacturing facilities.[4] Concern for subsidies consequences would counsel (1) amending the allocation formula to reflect a 'best guess' of the average emissions reduction potential for various classes and categories of sources; and (2) implementing Option I under a rule which limits (perhaps time limits) the ability of firms to accrue permits in respect of closed or downsized manufacturing facilities.

The preceding analysis examined the award of permits to large industrial combustors. Subsidies concerns might also arise in relation to the award of gratis permits to electricity generators. Although most electric utilities do not sell their product internationally, electric utilities do sell power to manufacturing facilities and if their power is deemed subsidized, the manufactured product would be deemed to have received an 'upstream subsidy.' Under long-standing U.S. practice (unmodified by the Uruguay Round), an upstream subsidy is defined as any subsidy that (1) is paid on an input product; (2) bestows a competitive advantage on the downstream product; and (3) has a significant effect on the cost of manufacturing the downstream product. If an upstream subsidy is deemed specific to the utility, the specificity finding would apply to all downstream buyers from that plant, regardless of their number and diversity. Thus, the key issue is whether electricity generators who are able to amass large surpluses pass the benefit through to their customers (or, worse, to certain, favored industrial customers) and whether the passed through benefit represents a significant portion of manufacturing cost and bestows a competitive advantage on the manufactured product. In this analysis, the benchmark for comparison will be, not electricity prices pre-Option I, but what electricity prices would be under Option I without the grant of surplus permits to the generator. Further economic analysis would be needed to assess the likelihood of competitively significant electricity subsidies being conferred under Option I.

[4]A rule that 'subsidizes' plant closure is also likely to generate political opposition. Regardless of whether the plant closure reflects a decision to exit the industry (creating a market opportunity for imports) or to re-locate manufacturing overseas, critics will charge that the result is the same: domestic production is replaced by imports, U.S. jobs are lost, and (since foreign facilities also release greenhouse gases) global carbon emissions are simply displaced, not reduced.

Option II seeks near total coverage of carbon emissions within an administratively manageable cap and trade permit scheme. It would require, and ration, permits for the *sale* of all carbon fuels (coal, oil and natural gas), while imposing the permit requirement at the narrowest points in the energy distribution chain. Permits would be auctioned (rather than given away) at the point of extraction for coal, refining for petroleum, and distribution for natural gas. Permits would also be required for imports of refined petroleum products. The cost of permits would confront all users of energy with price increases (highest for carbon-rich coal) that would encourage them to conserve fuel and/or switch to lower carbon fuels.

This Memorandum concludes that Option II would pose no conflict with WTO rules provided it is implemented in a manner which does not discriminate covertly against imports by, for example, calculating the carbon content of foreign and domestic fuels/products by a discriminatory methodology that requires foreign suppliers to hold more permits per unit than similarly situated domestic producers.

Option III is described as a 'more complex, but possibly more politically attractive' permit system. Besides imposing a series of energy-efficiency product standards (as in Option I), it would require all *extractors* of coal, oil and natural gas to hold a permit for each unit of fuel sold in the United States. The overall supply of permits -- and the U.S. supply of fossil fuel -- would be capped at a level that promotes compliance with the Unites States' Kyoto commitment. Permits would be issued free-of-charge to coal, oil and gas extractors based on each supplier's pro rata share of the U.S. market in some baseline year, such as 1990. However, half the supply of permits that otherwise would go to coal extractors would be diverted to coal combustors, who would receive the permits free of any regulatory obligation. Since combustors would have no need of the permits they receive, it is expected that combustors would simply sell their permits back to coal, oil or gas extractors who do need them.

Since Option III treats oil and gas producers, coal producers, and coal combustors differently, each requires a separate WTO analysis. *Oil and gas producers* will find their permits to produce and import oil and gas rationed under Option III. The national treatment provisions of the WTO Agreement will require that domestic and imported oil and gas be assigned permits under the same formula (unless there is a compelling reason not to do so). This should not raise undue political opposition in the United States, since it is well understood by now that the WTO requires national treatment of all products, including oil and gas products.[5] Moreover, Option III should not raise subsidies issues in respect of oil

[5]The WTO Agreement will *not* require the United States to grant permits to pariah nations like Iran and Iraq

and gas producers if, as seems likely, such producers continue to supply oil and gas up to the level allowed by the number of permits allocated them, or affordable at market prices. Subsidies issues will begin to arise only at the point at which individual oil and gas producers begin to accumulate major stores of 'surplus' permits. *Foreign* oil and gas producers can probably be precluded, if necessary, from amassing large surpluses.[6] But domestic oil and gas producers would be deemed to have received a specific subsidy, and it would be actionable if the other conditions mentioned above were met.

Oil and gas producers could generate large surpluses only by reducing sales in the United States market below their baseline-year levels. Given that coal conversion is likely to *increase* the demand for oil and gas, why would any profit-maximizing oil and gas company choose to reduce its U.S. sales? Mainly because, under Option III as written, every unit of oil/gas that was sold by a company in the allocation baseline year generates one permit a year, in perpetuity, for the selling company. If the corresponding unit of oil and gas is diverted overseas in the allocation year, that generates a subsidy -- in the form of a one free, salable permit each year -- for the diverting oil and gas company. Given this incentive, oil and gas companies with historic U.S. sales almost certainly will choose to divert some traditional U.S. supplies of oil and gas to overseas markets. That diversion will create a price-spike of oil and gas in the United States which will either lure in new suppliers who will buy permits to meet the demand, or reduce the incentive for historic suppliers to divert. Eventually, supply and demand will equilibrate at a U.S. price which equals the overseas price of oil and gas plus the market value of the associated permits. From the standpoint of U.S. oil and gas consumers, Option III will be identical to Option II in terms of energy price impact: unit energy prices will increase by the full amount of the cost of purchasing the corresponding permits. But the revenues that would go to the government under Option II's auction system will be lavished on historic oil and gas suppliers as subsidies under Option III. In practice, few foreign countries are likely to complain of receiving subsidized oil and gas from the United States or erstwhile U.S. suppliers. But the U.S. political opposition to such a scheme could be considerable, and WTO subsidies issues could arise if oil and gas companies use revenues from the sale of surplus permits to 'cross-subsidize' other manufactured products into which those companies diversify:

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under Option III any more than it requires the United States to import oil and gas from these countries now. Such countries have long been excluded from the United States market under the national security exceptions of GATT Article XXI. Option III would not change that.

[6]While a WTO panel might conceivably regard this as a violation of the national treatment norm, the better view is that such a rule simply channels the subsidy element implicit in surplus permits to domestic providers. The WTO Agreement expressly exempts domestic subsidies from national treatment obligations.

indirect subsidies are subsidies. One way to avoid this result is to craft an anti-diversion rule for Option III: e.g. *reduce* each oil and gas firm's entitlement to 'surplus' permits (permits in excess of allocation-year U.S. oil and gas sales) by the amount of any *increase* in that firm's overseas sales of oil and gas in the allocation year (or increase above a certain level) compared to the baseline year.

The treatment of coal extractors under Option III raises somewhat different concerns. Coal extractors will receive a supply of permits that reflects less than half their baseline year production. They also will confront a shrinking domestic demand for coal. To the extent they respond by simply downsizing operations to a level that reflects the reduced demand and the scarcity of available and affordable permits, no WTO issues will arise. However, some coal extractors may choose to reduce domestic coal sales by more than the amount required by the scarcity of permits. Revenues from sales of surplus permits could then be used to cross-subsidize (a) increased coal sales in foreign markets ('diversion'), or (b) transition from coal mining into some other line of production ('industry exit'). Certainly diversion of sales to foreign markets will be attractive to mining companies who wish to stay in the business. Although coal extractors will see half of their permits siphoned off to combustors, it is conceivable that certain extractors with historically large U.S. sales could divert so much coal to foreign markets that they would amass a considerable revenue stream from sale of now-'surplus' permits. Besides undermining the global climate benefit, such a response could elicit subsidies challenges from foreign coal suppliers. Similarly, coal extractors who choose to *exit* the coal mining business -- by shifting/diversifying into non-coal product lines -- might also accumulate considerable revenues from sale of permits awarded them in respect of historic production levels. This could raise a risk of subsidies challenge from foreign manufacturers of these other products. If these diversion/exit scenarios are deemed plausible, they may argue for some limitation (perhaps time limits) on the eligibility of diverting/exiting coal extraction firms to continue to receive permits in respect of historic coal production.

The treatment of coal combustors under Option III could raise issues under the WTO Subsidies Agreement, though a proper assessment of the litigation risk would require further economic analysis. Clearly, the free permits issued to coal combustors would all be 'surplus' to those combustors and would all be sold back to extractors for cash or fuel purchase price offsets. Ninety (90) percent of the permits awarded coal combustors under Option III would flow to coal-fired electric power plants and would clearly be deemed a 'specific' subsidy. Although most electric utilities do not sell anything moving in international trade, Option III would raise the 'upstream subsidy' issues discussed under Option I, with one crucial difference: Option III likely will to leave electric utilities with many more 'surplus' permits.

The remaining 10 percent of the coal combustors' share of permits would be distributed among about ten major industry groups, with a concentration in four: primary metals, paper and paper products, chemicals and allied products, and food products. None of these industry groups would receive even 2 percent of the overall subsidy. While the law on specificity is somewhat vague, as mentioned, a review of available precedents suggests that a *de jure* or *de facto* specificity finding on these facts is unlikely.

Option IV inverts Option III, with a twist. Instead of requiring extractors to hold permits to sell and issuing 'freeby' permits to large combustors (as in Option III), Option IV would require large combustors to hold permits to emit while issuing permits to large combustors *and* coal extractors. Since coal extractors would not need the emissions permits issued to them, they would sell the permits back to the combustors. Option IV is thus made politically attractive to coal extractors in the same way that Option III is attractive to coal combustors. The 'twist is that auto manufacturers who sell in the United States market also would be required to hold emissions permits (allocated on the basis of each automaker's future emissions commitment for its fleet.) Automakers would be allowed to trade permits with combustors or coal extractors on a market basis, subject to the regulatory requirement that each automaker must hold one permit for each unit of future emissions predicted from its fleet.

This Memorandum concludes that the issuance of permits to *automakers* and their inclusion within the cap and trade scheme of Option IV would not raise serious WTO issues provided that fleet emissions are forecast via methodologies that are consistent for all fleets and do not discriminate against foreign manufacturers. The treatment of *large stationary combustors* seems unlikely to raise significant WTO issues since such combustors, under Option IV, will not receive any meaningful volumes of surplus permits except, again, to the extent they exit their industries, and they are unlikely to exit their main line of business merely in order to generate a relatively meager ration of surplus permits. The preferential treatment afforded domestic *coal extractors*, on the other hand, would raise the subsidies issues discussed in connection with the treatment of coal extractors under Option III, aggravated by the fact that coal extractors under Option IV would receive permits unencumbered by regulatory obligations, and thus would have many more 'surplus' permits to work with. In practice, the United States is an insignificant importer of coal, so foreign governments are not likely to bother complaining of domestic coal subsidies on import substitution grounds. The main risk of a subsidies challenge would arise if, and to the extent that, U.S. coal extractors use revenues from permit sales to cross-subsidize coal (or other product) sales in foreign markets.

Limiting Greenhouse Gas Emissions Through Emissions Trading:
An Interim Report

Comments on WTO Aspects
Richard W. Parker

In the Kyoto Protocol to the Framework Convention on Climate Change, the United States committed, subject to Senate ratification, to reduce aggregate net emissions of greenhouse gases (GHG) by 8 percent below 1990 levels within the period 2008-2012. It is now widely accepted that this commitment cannot be met by voluntary measures. Increased energy taxes seem politically out of the question in the United States. Businesses are more favorably inclined to the idea of tradable emissions permits (assuming *anything* is to done), and it is now widely agreed that any U.S. initiative to comply with its Kyoto commitment is likely to feature some variation on the theme of tradable emissions permits. Yet, until now, very little detailed work has been done on what a tradable emissions scheme for GHG might look like.

The H. John Heinz III Center for Science, Economics and the Environment has gathered a prominent group of policy analysts to study the question of how the United States might implement its Kyoto commitment, using tradable permit approaches in tandem with other methods. (Supplementary methods, as discussed below, are necessary because of the incredible number and variety of GHG sources, many of which are too small and/or difficult to monitor to incorporate in a manageable GHG emissions trading scheme.) The draft report of the group, entitled *Limiting Greenhouse Gas Emissions Through Emissions Trading: Interim Report*, lays out four options for complying with the Kyoto commitment. The Interim Report examines a variety of technical, economic and political issues associated with each of these options. This Memorandum addresses each of the Options in turn, and considers whether, to what extent, and under what circumstances, each of these options appears likely to conflict with United States international trade obligations as set forth in the newly established Uruguay Round Agreement Establishing the World Trade Organization ('WTO Agreement'). A few preliminary observations may be useful in setting the stage for what follows.

Preliminary Observations. The analysis which follows focuses strictly on the WTO aspects of measures directly proposed in the Interim Report. However, it should be recognized that a scheme for

rationing emissions rights to domestic producers is not likely to stop there: energy-intensive U.S. manufacturers are likely to respond to costly limits on carbon combustion and/or higher-priced electricity inputs by demanding either extension of the scheme to cover imported 'like products' or protection of domestic industry via cash subsidies, import surcharges, and/or export rebates. (This political response by U.S. manufacturers will be exacerbated to the extent that foreign producers are not subject to any comparable requirements in their home markets; and attenuated to the extent they are.) Any subsidies or border adjustments or restrictions granted in response to such demands would raise serious and difficult WTO issues, unless the WTO were itself clarified or amended to accommodate such measures.

Second, the principal WTO concerns raised by the four options are subsidies concerns. In analyzing the various options we will focus on detailed examination of the relevant provisions of the WTO Subsidies Agreement in light of U.S. doctrine and practice interpreting and applying these provisions. A focus on U.S. doctrine may be questioned since it is clear that the U.S. is not going to bring an action against its own practices. However, I believe a focus on U.S. subsidies doctrine is necessary and appropriate, for the following reasons. The Subsidies Agreement is only four years old, it is not a model of clarity, and only a handful of subsidies cases interpreting the Agreement have been decided either by the WTO or in countries other than the United States. I have found no authoritative travaux or negotiating history for the Agreement, nor have I found any subsequent WTO panel decisions or foreign countervailing duty decisions on point. **[Can any readers of this draft help me on this?]** Because the United States has brought the vast majority of countervailing duty cases decided since 1947 -- initially under Articles VI and XVI of the 1947 WTO as clarified by the 1979 Subsidies Agreement and, since 1994, under the Subsidies Agreement -- existing practice in the area of subsidies enforcement is largely the story of U.S. practice. And because the United States has taken the position that the new Agreement largely codifies existing U.S. practice in most respects relevant to this discussion,[1] we must anticipate that the United States is likely to be unwilling (or unable) to defend, in some hypothetical future dispute involving emissions trading, a position that contravenes the United States' own previous doctrine and practice.

Third, the United States is without question the most frequent and tight-fisted (some would say protectionist) enforcer of subsidies disciplines. Only a handful of other countries have brought subsidies

[1]See, e.g., United States Statement of Administrative Action at 255 (subsidy definition reflects U.S. practice) and 260-261 (specificity test reflects U.S. practice), reprinted in Applebaum at 231 and 237, respectively.

complaints and then only in a relative handful of cases. Analyzing the Options in terms of WTO doctrine elucidated by United States practice thus provides a conservative estimate of litigation risk.

Fourth, although WTO Article XX provides a limited exception from normal WTO disciplines for trade measures 'necessary' to protect human, animal or plant life or health (Art. XX(b)), or 'relating to the conservation of exhaustible natural resources' (Art. XX(g)), these exceptions are to the main WTO 1947 Agreement. WTO Article XX probably will be found *not* to qualify application of the Subsidies Agreement. Unlike the 1979 Subsidies Agreement, the Uruguay Round Subsidies Agreement does not purport to be an interpretation of Articles VI and XVI of the 1947 WTO. It is a separate and new agreement. The 'actionability' of any scheme thus will depend on how it fares under the Subsidies Agreement standing alone.

Finally, it bears mention that WTO is a legal regime, but it is also a political institution. Although the WTO has dealt harshly with 'unilateral' U.S. trade sanctions aimed at protecting the environment, it has dealt rather softly with trade measures adopted pursuant to multilateral environmental agreements. Indeed, no challenge has yet been brought to trade measures adopted pursuant to CITES, the Basel Convention, or the ozone treaty, despite the technical vulnerability to challenge of trade measures employed under each of these conventions. The climate treaty is among the most salient of international environmental agreements and bona fide climate change implementation measures are likely to benefit from an informal presumption in their favor. However, this presumption will certainly be rebuttable by any showing of bright-line transgressions of WTO rules involving clear favoritism of particular firms or industries.

The discussion of Option I will set forth the main contours of the WTO analysis which applies to all the options. Having developed the relevant WTO legal analysis in discussion of Option I, we will then be in a position to build on that analysis in dealing more briefly with the remaining three.

OPTION I

Option I consists of two main control strategies: (a) a tradable corporate average carbon emissions (CACE) standard for automobiles and a (possibly tradable) set of energy efficiency standards for refrigerators, air conditioners, building furnaces, and other electricity or fossil-fuel using equipment; and (b) a 'cap-and-trade' scheme covering 'large stationary combustors.' The permit scheme would cap aggregate emissions from facilities using boilers of greater than 100 million Btus/hour or consuming more than 1,000 tons of coal per year. The cap would be set at 510 million tons of carbon (MtC) per year, distributed among covered sources according to each source's pro rata share of carbon emissions in some baseline year, such as 1990. Under the formula, it is expected that 375 MtC would be allocated to electricity generators. The remaining 135 MtC would be allocated among a variety of industrial combustors that meet the 'large source' criteria: petroleum products and petrochemicals, basic organic and inorganic chemicals, pesticides, fertilizers, pharmaceuticals, paints, adhesives, soaps and cleaning compounds, pulp and paper and paper products, resins, synthetic rubber and man-made fibers, primary metals, and cement, glass, bricks, lime and other stone and ceramic products. New large sources (those constructed after the baseline year) would receive no permits. Sources would be free to buy and sell permits as needed to support their operations, but all sources, new and old, would be required to hold one permit for every ton of carbon emitted, and that permit would be consumed by the emission of that ton. The permit scheme would cover only U.S. manufacturers. Assuming, as the Interim Report does, that permits would be valued at $75 each, the total value of *all* permits issued to electricity generators and large industrial combustors would be $28 billion and $10 billion, respectively.

Option I, like the other options, will confront permit recipients with three possible courses of action. First, recipients may choose to continue U.S. manufacturing output up to at least the historic level of output, with only such reductions in output as are required by scarcity of emissions permits allocated to them or available for purchase at affordable prices ("continuation strategy"). Second, permit recipients may elect to re-locate U.S. manufacturing facilities overseas ("diversion strategy"). Re-location of facilities overseas will generate surplus permits for recipients if, and to the extent that the option allows re-locating firms to continue to receive allocated permits in respect of baseline-year emissions of now-closed or downsized facilities. Third, permit recipients may decide to exit their present industry altogether, in favor of less carbon-intensive or non-covered production ("exit strategy"). Once again, exit will generate surplus permits for recipients if, and to the extent that, the option allows exiting

(or partially exiting) firms to continue to receive permits in respect of baseline-year emissions. While Option I does not set forth explicit rules governing exit and diversion, conversations with drafters suggest that Option I as presently conceived would allow re-locating firms *and* exiting firms to continue to receive permits in respect of baseline-year emissions, at least for a period, say, five years.

Option I appears to contemplate a purely domestic scheme of emissions rights and regulations which would not apply to imported goods. The remaining discussion therefore assumes that imported goods would remain totally outside the process emissions cap-and-trade scheme (sub-option (b)), though they would need to conform to any product standards imposed under sub-option (a).

WTO Analysis

Product standards (sub-option (a)). U.S. product standards imposing minimum mileage or energy efficiency requirements for products -- be they cars, trucks, refrigerators, or air conditioners -- are not likely to raise WTO concerns so long as they are crafted in a way that does not discriminate against imported products. Moreover, it appears that the paramount concern is to avoid facial discrimination against foreign products. A recent WTO dispute panel upheld a U.S. standards scheme closely analogous to the CACE – the Corporate Average Fuel Efficiency (CAFE) standard for automobiles – even though that scheme was implemented in a way that burdened foreign producers, *de facto*, much more heavily than their U.S. rivals.[2] The only portion of the scheme rejected by the panel was a provision which established separate fleet averaging rules for domestic and foreign fleets -- a facial discrimination. While the CAFE case certainly does not stand for the proposition that flagrant cases of *de facto* discrimination will never be struck down (and the CAFE decision itself will not bind future WTO dispute panels), the CAFE panel's refusal to find a national treatment violation in the face of a fairly significant *differential* in regulatory impact (favoring domestic producers) suggests that the scrutiny given to facially neutral product standards is likely to be fairly lenient. While it remains, as always, desirable to avoid differential and adverse impacts on imports, the key concern is to ensure that any standards do not facially discriminate between domestically-manufactured and imported goods.

Large combustor cap-and-trade scheme (sub-option (b)). The carbon emissions cap-and-trade scheme set forth in sub-option (b) does not raise issues under the most favored nation and national

[2] General Agreement On Tariffs and Trade: United States -- Taxes on Automobiles, DS 31/R, Sept. 29, 1994.

treatment provisions of WTO Articles I and III, respectively, because it does not apply to imported products. However, as discussed below, the provision of valuable emissions rights gratis to certain combustors could constitute 'actionable' subsidies under the WTO Agreement on Subsidies and Countervailing Measures (Subsidies Agreement).[3]

The Subsidies Agreement divides national practices into three categories: red light, green light, and other. 'Red light' subsidies -- government subsidies that are contingent on export performance or use of domestic over imported goods -- are prohibited regardless of whether they are applied generally or to specific industries and regardless of whether they cause adverse economic effects or not. *See* Subsidies Agreement, Art. 3. 'Green light' subsidies are given an equally unqualified safe harbor from WTO discipline. One of these categories of green lights subsidies involves 'environmental subsidies,' but the term is defined narrowly to cover only government assistance to promote adaptation of existing facilities to new environmental requirements provided that the assistance: (i) is a one-time non-recurring measure; and (ii) is limited to 20 percent of the cost of adaptation . . . *See* Subsidies Agreement Art. 8.2. Since a yearly allotment of permits to domestic combustors sub-option (b) entails neither a (prohibited) export or import substitution incentive nor a (permitted) one-time environmental subsidy, no quick and easy analysis is available. We must look more deeply.

Under the Subsidies Agreement, a government practice is defined as a 'subsidy' if it is a 'financial contribution' that confers a benefit. (Art. 1) A subsidy is actionable if it (a) confers a benefit upon 'certain enterprises' (i.e. a limited number and variety of enterprises and industries) and (b) causes 'injury to the domestic industry of another member', 'serious prejudice' to the interests of another Member, or 'nullification or impairment' of tariff concessions made by the subsidizing Member. Actionable subsidies may trigger WTO dispute settlement proceedings leading to a WTO cease-and-desist recommendation (and possible retaliatory tariffs) if such subsidies cause 'serious prejudice' to the interests of another country in the subsidizing country's own market or in a third-country market. Actionable subsidies also may trigger countervailing duties on U.S. exports if the national authority of the

[3]If a complaint is brought in WTO dispute settlement it is conceivable, though not likely, that the program as a whole could be challenged facially as a violation of the Subsidies Agreement. The more likely prospect is that Option I may challenged as applied to particular products or industries of concern to complainants. In a foreign countervailing duty action, the scheme can *only* be challenged in terms of its application to products of the particular industries bringing a complaint in that country.

importing country finds that subsidized imports have caused or threaten 'injury' to a competing industry in that country. (Arts. 2, 5, 6, 7, 11). The key elements to be analyzed, therefore, are (a) financial contribution, (b) benefit, (c) specificity, and (d) injury, nullification or impairment, or serious prejudice.

Financial contribution

Article 1.1 of the Subsidies Agreement states:

For purposes of this Agreement, a subsidy shall be deemed to exist if:

(a)(1) there is a financial contribution by a government or any public body within the territory of a Member (referred to in this Agreement as 'government') i.e. where:

(i) a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);

. . .

and

(b) a benefit is thereby conferred.

An argument that permits are 'financial contributions' could rest on either of two analytical foundations. The first is the broad view of 'financial contribution' adopted by the United States in its long-standing countervailing duty practice, and in its Uruguay Round bargaining position, implementing legislation and accompanying Statement of Administrative Action (SAA). United States practice construes the term 'financial contribution' to encompass any "formal, enforceable measure which directly led to a discernible benefit being provided to the industry under investigation."[4] In *Certain Fasteners from India: Final Countervailing Duty Determination and Countervailing Duty Order*, the Commerce Department concluded, in dicta, that an Indian tradable permit scheme -- which gave exporters special licenses to import goods to replenish stocks of imported inputs – would have been countervailable (had it been used) because the permits were negotiable and hence had market value and conferred a benefit on the recipient. Even purely regulatory measures -- such as Canada's ban on the export of unprocessed logs and Argentina's restriction on exports of unprocessed hides -- have been deemed indirect subsidies to domestic processors in those countries. Any definition of subsidy broad enough to sweep in Canadian log export restrictions and Indian import licensing schemes is likely to sweep in U.S. tradable emissions permits as well.

[4]SAA at 926.

The breadth of this interpretation may, perhaps, be questioned.[5] There is, however, a second basis for characterizing permits as financial contributions. It is the simpler, narrower one that permits are negotiable legal instruments which have clear and measurable monetary value, and their transfer to certain recipients is like, if not identical to, a 'direct transfer of funds.' Few would dispute that the concept of 'funds' is broad enough to include stocks, bonds, options, derivatives, and other legal instruments which, when sold, yield cash. Are *all* permits therefore financial contributions?

There is, in my view, a viable distinction between tradable permits that are needed to meet regulatory requirements and 'funds.' Unlike stocks, bonds, etc., emissions permits issued under Option I would be coupled with a regulatory requirement that requires each source to limit yearly carbon emissions to a level that corresponds to the number of permits held. Companies who wish to continue to operate cannot sell all their permits for cash. Only 'surplus' permits may be sold for cash. Non-surplus permits do not 'compensate' facilities for emissions reductions requirements (as in classic environmental subsidies); they simply calibrate the degree of emissions reduction that is required. They are a regulatory mechanism; not a compensatory scheme.

What of the fact that Option I would award *gratis* permits to existing facilities and none at all to new ones? Does this prove that new facilities are expected to achieve zero emissions such that any award of permits to existing plants is 'really' a compensatory scheme and a subsidy *per se*? The only reasonable answer in my view is no, Option I clearly does not contemplate that any fossil-fuel facility will operate at zero emissions. All facilities will need permits to operate. Existing facilities will receive some permits free; new facilities will not. This does not prove that all permits issued to existing facilities are a 'financial contribution'; it merely proves that Option I discriminates against new sources. Nothing

[5]The Administration's interpretation -- that a subsidy will be found in any regulation leading to a discernible benefit to a domestic industry -- is so broad as to essentially read the requirement for a 'financial contribution' right out of the Subsidies Agreement. In fact, in *Certain Softwood Lumber Products from Canada: Final Affirmative Countervailing Duty Determination*, 57 FR 22570 (May 28, 1992), Commerce defended its determination that Canada's log export restrictions constituted an indirect subsidy to Canadian softwood lumber producers (via a depressed price of cut timber inputs) by noting, repeatedly, that the Subsidies Code definition of subsidy (pre-Uruguay Round) did not require a 'financial contribution.' After the Uruguay Round, the new Subsidies Agreement *does* require a financial contribution, in so many words, yet Commerce takes the position that that makes no difference: all regulatory practices that confer benefits are subsidies anyway!

in the WTO Agreement prohibits discriminating against new sources on a national treatment basis. In fact, U.S. environmental laws have "discriminated against" new sources for decades, by imposing higher environmental standards on them than are imposed on existing sources, without ever triggering a WTO challenge.

Thus, the better view is that 'surplus' permits – and only surplus permits – constitute a financial contribution. The fact that the government never intentionally awards 'surplus' permits is immaterial.[6] Likewise, the fact that permits are issued at no cost to the government is immaterial: the Subsidies Agreement clearly confirms the long-standing U.S. position that benefit to the recipient, not cost to government, is the touchstone of a subsidy. Here, recipients benefit by at least the amount (and value) of saleable surplus permits received at no cost from the government.

Benefit

Under the Subsidies Agreement, a subsidy exists if a financial contribution is made and a 'benefit is thereby conferred.'[7] This use of the passive voice lends independent credence to the view that benefits accruing indirectly from financial contributions (here, by reducing emissions and selling surplus permits) are nonetheless benefits.[8] It has been seen that the amount of the benefit is likely to be measured by the market value of 'surplus' permits awarded to each enterprises covered facilities.

Two important features of the benefit calculation bear special mention. First, the benefit is *not* likely to be offset further by the cost of reducing emissions to the level necessary to generate the surplus. The fact that a subsidy is received as partial compensation for higher fuel costs and/or fuel conversion costs or other regulatory compliance costs is irrelevant to the determination of whether a subsidy exists or

[6]See Subsidies Agreement Article 1.1 (quoted above).

[7]Subsidies Agreement Art. 1.1(b). This phrase puts to rest a long-standing dispute within WTO about whether subsidies should be defined and measured on the basis of cost to government or, alternatively, benefit to recipient. At least in cases where a financial contribution is provided, the U.S. position, favoring benefit to the recipient as the litmus test of subsidy, has triumphed.

[8]This use of the passive voice undermines the defense that government issuance of salable permits confers no benefit because any revenues from such permits must be earned by reducing emissions over and above the allocated amount in order to generate a surplus for sale. Under the Subsidies Agreement, it is not necessary that the government contribute a benefit. It is only necessary that the government contribute something, and that a benefit is thereby conferred.

the calculation of the subsidy margin. With the one (inapplicable) exception of permissible environmental subsidies described above, the Subsidies Agreement treats subsidies for regulatory compliance just like any other subsidy.[9] Second, the margin of benefit is not likely to be diminished (or augmented) by the way the recipients *use* the subsidy. It simply will not matter whether or to what degree the receiving companies use the subsidy to lower prices and gain competitive advantage, or whether they simply return the subsidy as rent to employees, management, or shareholders.[10] Benefit will be measured by the market value of surplus permits conferred on each enterprise, full stop. This total benefit will be divided by the total yearly sales of the products benefitting from the subsidies, to yield an ad valorem subsidy rate ('subsidy margin'). Subsidies that are not earmarked for particular products would be allocated over the firm's entire product sales.[11]

The Subsidies Agreement provides a safe harbor from countervailing duties for *de minimis* subsidies, i.e., subsidies margins of less than 1 percent ad valorem.[12]

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[9]See Commerce Department, Notice of Proposed Rulemaking, Feb. 26, 1997, 62 FR 8818 (a subsidy that reduces a firm's cost of compliance with a regulation remains a subsidy even though the overall effect of the two government actions, taken together, may leave the firm with higher costs).

[10]Canada has maintained that 'benefit' should be measured not in terms of the monetary value of the contribution, but in accordance with the competitive advantage derived thereby. This argument would reduce the benefit by the portion of each contribution which was not used to cut prices or expand market share, but was simply internalized as 'rent', i.e. retained as earnings, paid out to employees or dividended to shareholders. Distributions disposed of in this way arguably do not 'distort markets' and therefore should not be counted as 'benefit.' Applying pre-Uruguay Round subsidies doctrine, Canada persuaded a U.S.-Canada Free Trade Area Binational Review Panel (divided perfectly along national lines) to require Commerce to apply a market distortion analysis in the appeal of the Commerce Final Affirmative Countervailing Duty Determination in *Certain Softwood Lumber Products from Canada.* Commerce followed orders in that case, but the United States has not accepted the general proposition. In its recent Uruguay Round implementing legislation and Statement of Administrative Action, the Clinton Administration reiterated its view that market impact should *not* be considered in determining whether a subsidy has been provided. Moreover, nothing in the text of Article 1 of the Subsidies Agreement supports, much less requires, Canada's market distortion analysis.

[11]*See* Subsidies Agreement, Annex IV.

[12]*See* Subsidies Agreement, Art. 11.9. While, the Subsidies Agreement provides that benefits to any enterprise in excess of 5 percent ad valorem will be deemed to cause serious prejudice per se (Article 6), Annex IV of the Agreement stipulates that the 5 per cent subsidy calculation is to be determined on the basis of "cost to the granting government." Since emissions permits are costless to the government, the 5 percent threshold is inapplicable to our case. However, firms using subsidies to 'start up' new lines of production are deemed to cause serious prejudice *pre se* if the overall rate of subsidization in the first year of production exceeds 15 percent of the total funds invested in the start-up. *See* Subsidies Agreement, Annex IV.

Option I will bestow 'surplus' permits principally upon (1) firms continuing to operate facilities that enjoy significant fuel-switching and/or other emissions reduction options; and (2) firms that close (or radically downsize) facilities whose baseline-year emissions generate a continuing stream of permits. Facility closure or downsizing might be done in order to exit the covered activity altogether (exit strategy), or in order to re-locate covered facilities overseas (diversion strategy). With regard to firms and facilities continuing to operate at or above historic levels of output, it is significant that the Option I cap-and-trade scheme assigns permits to individual manufacturing sources on the basis of historic emissions, not on the basis of future emissions reduction potential. This allocation method increases the likelihood -- though it by no means assures -- that certain firms or industries (e.g. historic coal combustors blessed with inexpensive fuel switching options) will garner non-de-minimis levels of surplus permits and subsidies. From a subsidies perspective, a more refined permit allocation formula based on estimates of average future reduction potential of classes and categories of sources (rather than historic emissions) would be preferred.

The prospect of plant closures (or downsizings) in response to Option I raises more difficult subsidies issues. As mentioned, such plant closings might occur either in connection with a firm's exit/partial exit from a high-carbon line of manufacturing, or in connection with the re-location of a covered manufacturing facility overseas, presumably to an unregulated jurisdiction. If plant closure/downsizing causes forfeiture of the associated stream of permits, no subsidies issues arise. If, however, Option I is implemented under a rule that allows plant closing firms to retain their entitlement to the permit stream generated by the closed facility, then it is clear that the receiving firm could receive a significant, on-going subsidy in the form of stream of surplus permits that are salable for cash. Such a result might – provided the other conditions of actionable subsidy are met – trigger a subsidies challenge from foreign manufacturers of competing products. More likely, such an outcome (or the prospect of it) might trigger strong political opposition in the United States, where critics would charge that Option I rewards and encourages U.S. manufacturers to close U.S. facilities in order to generate unencumbered, salable permits. They would say that whether closure leads to exit of that firm from the industry or merely re-location of the firm's manufacturing overseas, the perverse result is the same: domestic production is replaced by imports, U.S. jobs are lost, and (since foreign facilities also release greenhouse gases) global carbon emissions are simply displaced, not reduced. How likely is the exit/re-location response in practice? Microeconomic responses to policy stimuli are notoriously hard to model or

predict; in any case, such an empirical question lies well outside this paper's scope. To the extent the exit and re-location scenarios are deemed credible, they need to be addressed in the design of Option I. They may argue for some limitation (perhaps time limits) on the eligibility of firms to continue to receive permits in respect of historic production from closed facilities.

The special case of upstream subsidies. The allocation formula contemplated by Option I would bestow a major share of annual issue of permits on fossil-fuel (especially coal-fired) electric utilities. Many of these utilities will have options for converting from coal/oil to natural gas, thereby creating the potential for such utilities to reduce substantially their use of permits per unit of electricity output. This will tend to create surplus permits. On the other hand, such utilities are likely to face a much higher demand for electricity in the allocation year (2008) than they faced in the baseline year (1990). This will tend to shrink the availability of surplus permits by forcing utilities to use permits released by coal-gas conversion to support expanded power output. Therefore, I am unable to predict whether, on balance, electric utilities (particularly coal-fired electric utilities) will generate sizable volumes of surplus permits in practice.

If this group of powerplants does generate significant surpluses, an upstream subsidies issue could arise. Although electric utilities do not produce anything that moves directly in international trade, they do sell power to manufacturing facilities. If the power is deemed subsidized, the downstream product manufactured with the input of that power would be deemed to have received an 'upstream subsidy.' Moreover, electric utilities will receive the lion's share of permits under Option I and subsidies to utilities almost certainly will be found to be 'specific' on the basis of the disproportionate use specificity rule. An upstream subsidy that is deemed specific to the electric utility sector (see analysis below) would be regarded as *per se* specific to all downstream buyers of electricity, regardless of their diversity.

Under long-standing Commerce practice (unmodified by the Uruguay Round), an upstream subsidy is defined as any subsidy that (1) is paid on an input product; (2) bestows a competitive advantage on the downstream product; and (3) has a significant effect on the cost of manufacturing the downstream product.[13] As the SAA clarifies, subsidies on upstream products are only considered

[13]See *Hardwood Trailer Flooring from Canada*, 62 FR 5201, download p. 4 (February 4, 1997).

upstream subsidies to the extent they are passed through to the downstream product and have a significant effect on the cost of manufacturing that downstream product.[14] I am not aware of any reason to suppose that other countries would analyze the case differently.

It is, of course, most unlikely that Option I would result in a lowering of electricity prices to customers compared to pre-Option I status quo. That is not the baseline for measuring the benefit to downstream users, however. Benefit will be measured on the basis of an estimate of what the price of electricity to customers *would have been* without the bestowal of surplus permits on certain utilities. This price differential will be multiplied by total power supplied per year, to yield an overall yearly benefit. This benefit will then divided pro rata among all utility customers according to their respective power usage, unless there is some reason to believe that the utility is giving special price breaks to favored customers. This is the estimate of benefit that will be used to determine whether the upstream subsidy has had a significant effect on input costs and provided a competitive advantage to the recipient firms. Again, it is impossible to predict with certainty what this analysis will yield.

Specificity

Recognizing that governments exist to provide goods and services which confer a benefit, and not wishing to define everything the government does as a subsidy, the Subsidies Agreement disciplines only subsidies that are 'specific to an enterprise or industry or group of enterprises or industries.' (Art. 1.2). Article 2 of the Subsidies Agreement states:

> In order to determine whether a subsidy, as defined in paragraph 1 of Article 1, is specific to an enterprise or industry or group of enterprises or industries (referred to in this Agreement as 'certain enterprises') within the jurisdiction of the granting authority, the following principles shall apply:
>
> (a) Where the granting authority, or the legislation pursuant to which the granting authority operates, explicitly limits access to a subsidy to certain enterprises, such subsidy shall be specific.
>
> (b) Where the granting authority, or the legislation pursuant to which the granting authority operates, establishes objective criteria or conditions governing the eligibility for, and amount of, a subsidy, specificity shall not exist, provided that the eligibility is automatic

[14]SAA at 270, reprinted in Applebaum at 246.

> and that such criteria and conditions are strictly adhered to. The criteria or conditions must be clearly spelled out in law, regulation, or other official documents so as to be capable of verification.[15]

Article. 2.1, note 2. Such are the guidelines for *de jure specificity*. Recognizing that facially neutral criteria may conceal targeting of specific industries or enterprises, by intention or effect, the Agreement adds the following on *de facto specificity*:

> (c) If, notwithstanding any appearance of non-specificity resulting from the application of the principles laid down in subparagraphs (a) and (b), there are reasons to believe that the subsidy may in fact be specific, other factors may be considered. Such factors are: (1) use of a subsidy programme by a limited number of certain enterprises, (2) predominant use by certain enterprises, (3) the granting of disproportionately large amounts of a subsidy to certain enterprises, and (4) the manner in which discretion has been exercised by the granting authority in the decision to grant a subsidy. [enumeration added]

Any determination of specificity must be 'clearly substantiated on the basis of positive evidence.' (Art. 2.4). The Administration has claimed, plausibly, that the language quoted above largely codifies prior U.S. doctrine and practice.[16] Thus, the issues is whether the Option I award of surplus permits to large fossil fuel combustors would constitute a subsidy that is either *de jure* or *de facto* specific.

De jure specificity. Clearly, a subsidy program that benefits every industry in the economy is not specific, while a subsidy program which is restricted by law to a single enterprise or industry is *de jure* specific. The difficulty arises from intermediate cases such as ours, where the beneficiaries are likely to be numerous and span several industry groupings, while falling far short of covering the entire economy or even the entire manufacturing sector. Unfortunately, it turns out that the law on specificity is a study in vagueness. Under U.S. practice, a subsidy is *de jure* specific only if the government 'expressly limits

[15]A footnote to this clause explains: "Objective criteria or conditions, as used herein, mean criteria or conditions which are neutral, which do not favor certain enterprises over others, and which are economic in nature and horizontal in application, such as number of employees or size of enterprise."

[16]SAA at 260-261, reprinted in Applebaum at 236-237. There is one area where U.S. law appears to diverge from the Agreement. U.S. law 'clarifies' that Commerce shall find *de facto* specificity under sub-paragraph (c) above (actually, its U.S. law counterpart) if any *one* or more of the four factors above 'exist.' 19 U.S.C.A. § 1677(5A)(D)(iii). The Subsidies Agreement, as seen above, does not support the sufficiency of any one factor.

access to a subsidy to a sufficiently small number of enterprises, industries, or groups of industries.'[17] Both the Subsidies Agreement and U.S. countervailing duty law, however, are intentionally vague on the concept of 'sufficiently small.' The Uruguay Round SAA observes:

> As under existing law, clause (i) [of U.S. implementing legislation which tracks clause (a) of Article 2 of the Subsidies Agreement] does not attempt to provide a precise mathematical formula for determining when the number of enterprises or industries eligible for a subsidy is sufficiently small so as to be properly considered specific. A proposal to establish such quantitative criteria was made during the Uruguay Round and was quickly rejected by the United States and many other participants. Commerce can only make such determinations on a case-by-case basis.[18]

Moreover, the vagaries of the term 'sufficiently small' are compounded by the definitional problems. In any universe of subsidy users one can find many 'industries' -- or only a few (or one) -- depending on how 'industry' or 'group' of industries/enterprises is defined.[19] Under U.S. law, the basic definition of 'industry' is clear enough from the statute: it means 'the producers as a whole of a domestic like product or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.' 19 U.S.C. 1677(4). 'Like product' determinations, while frequently contested at the margins, are basically familiar to practitioners and Option I clearly would make permits available to producers of a very wide variety of 'like products.' The definitional problem arises from section (5A) of the U.S. countervailing duty law, which adds a kicker: "For purposes of this paragraph and paragraph (5B), any reference to an enterprise or industry is a reference to a foreign enterprise or foreign industry and includes a *group* of such enterprises or industries." (italics added).

The word 'group' is statutorily undefined [20] and Commerce has expressly rejected the SIC or ISIC classification approach to defining 'group' (or at least rejected the notion that there is any

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[17]SAA at 260, reprinted in Applebaum at 236.

[18]SAA at 260, reprinted in Applebaum at 260.

[19]For example, in *Certain Softwood Lumber* Commerce saw only two industries using stumpage. The Canadian defendants, using a different approach to defining 'industry,' saw 'twenty-seven different industries' using stumpage. *Certain Softwood Lumber Products from Canada,* U.S.-Canada Free Trade Area Binational Panel Review (December 17, 1993), at 46.

[20]The Subsidies Agreement offers no guidance as to the meaning of either 'industry' or 'group.' Article 2 of the Subsidies Agreement does not even use these words, preferring the equally enigmatic term 'certain enterprises.'

requirement for such an approach), without offering any alternative ex ante approach. Commerce has even rejected the notion that a 'group' of industries must share common characteristics in order to be called a group.[21] Absent any governing criteria for defining a 'group', it would appear that Commerce has retained broad discretion to define the term on a case by case basis.[22] If other countries choose equally ad hoc approaches in their countervailing duty practice, then foreign administering authorities will have very broad scope to either countervail or exonerate U.S. tradable permit programs as they wish (at least insofar as the specificity test is concerned).[23] Likewise, the Subsidies Agreement states that a subsidy is *de jure* specific if only 'certain' enterprises are eligible, but offers no clear guidance as to how the word 'certain' is to be interpreted and applied in practice.

Suppose, next, that the eligibility for subsidy is determined, not by list, but by criteria: e.g., all producers emitting more than 'X' tons of greenhouse gases per year. Sub-paragraph (b) suggests that eligibility criteria expressed in 'neutral' and 'objective' terms should escape *de jure* specificity, provided the criteria were clearly spelled out in law or regulation, and do not favor 'certain enterprises' over others. But what does it mean not to 'favor certain enterprises over others'? All eligibility criteria inherently favor those firms that meet the criteria, and disfavor those that do not. The operative words appear to be 'certain enterprises', which is WTO-speak for what the U.S. refers to as a 'sufficiently small' or narrow grouping as to justify a specificity finding. Subsidies criteria drawn to benefit 'too few' enterprises and/or industries will be deemed to favor 'certain enterprises.' In the end, sub-paragraphs (a) and (b) of the Subsidies Agreement boil down to essentially the same *de jure* specificity test: whether the number of enterprises and/or industries legally eligible for a government subsidy is 'sufficiently small' (or non-diverse) to justify a specificity finding. We are back to the same definitional conundrum. All we can do is examine a few precedents to try to give readers a 'feel' for how this subjective determination of specificity would be made.

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[21]Certain Softwood Lumber Products from Canada, Final Affirmative Countervailing Duty Determination, 57 FR 22570 (May 28, 1992), download at 23A.

[22]For example, in *PPG v. United States (PPG I)*, 928 F.2d. 1568 (CAFC 1991) Commerce was invited by domestic petitioners to define a group of 'energy intensive' industries in Mexico to support a finding that natural gas subsidies furnished disproportionately to such a 'group' of users constituted a specific subsidy. To its credit, Commerce declined; but, significantly, Commerce could not articulate any principled reason for doing so.

[23]A second source of uncertainty arises from the fact that Commerce seldom explains its specificity findings in much detail, and seldom articulates exactly how many and which firms or 'industries' (as defined by Commerce) are eligible for subsidies in particular cases.

Commerce has held that subsidies made formally available to all 'agricultural' producers are not *de jure* specific,[24] but subsidies limited to horticulture and greenhouse industries are specific (though these two 'industries' span more than 60 categories of products).[25] Similarly, in its re-determination after an initial binational panel remand in *Certain Softwood Lumber from Canada,* Commerce found that stumpage subsidies made available to the 'pulp and paper' and 'wood products' industries were specific even though 3,600 enterprises in these industries (accounting for 2.5 - 4 % of all enterprises in Canada) actually used the stumpage and their products accounted for 9 percent of all commodities manufactured in Canada.[26] A bi-national U.S.-Canada FTA dispute panel (split perfectly along national lines) disagreed and ordered Commerce to find the stumpage subsidies non-specific. As the panel noted, Commerce had previously found that Mexican users of natural gas comprising only 3.5 percent of all Mexican companies were non-specific (though they arguably spanned a larger number of different 'industries'); and 'counsel for Commerce could refer to no case in which Commerce has found a group of users covering the equivalent of three 2-digit SIC codes to be 'too few.''[27] What emerges from these examples is an interplay between enterprise number and industry variety in *de jure* specificity determinations. Hundreds of beneficiaries may be considered 'too few' if they are concentrated in one or two industries. The same number of eligible beneficiaries (or a smaller number) may be considered non-specific if they range across a wide variety of different industries.[28]

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[24]*Live Swine from Canada*, 59 FR 12243 (March 16, 1994), download p. 8.

[25]Certain Softwood Lumber Products from Canada, Final Affirmative Countervailing Duty Determination, 57 FR 22570 (May 28, 1992), download p. 25.

[26]What appears to have persuaded Commerce of the specificity of these subsidies was not the number of enterprise beneficiaries, but the fact that only two 'industries' benefitted. *Certain Softwood Lumber Products from Canada,* U.S.-Canada Free Trade Area Binational Panel Review (December 17, 1993), download pp. 10-14.

[27]*Certain Softwood Lumber Products from Canada,* U.S.-Canada Free Trade Area Binational Panel Review (December 17, 1993), download pp. 14, 16, 19.

[28]See, e.g. *PPG Industries v. United States*, 978 F.2d. 1232, 1241 (CAFC 1992) (holding that although the actual number of eligible firms must be considered, it is not controlling. Instead, the actual make-up of eligible firms must also be considered. A relatively small number of eligible firms will be considered non-specific if they span a wide variety of industries); for the converse proposition, recall *Certain Softwood Lumber Products from Canada, Final Affirmative Countervailing Duty Determination*, 57 FR 22570 (May 28, 1992) (holding that fact that 3500 firms actually use subsidy program is not dispositive where firms are limited to two industry sectors).

With these caveats, it should be noted that I have found no clear precedents in U.S. or WTO practice where nominal subsidy eligibility extended as widely as is contemplated in Option I has been found to be de jure specific.[29] *Option I applies very broadly on its face, and it seems unlikely that foreign governments would choose a good faith climate change compliance measure to push the legal envelope in finding the program de jure specific.*

The greater danger lies in the area of *de facto* specificity.

De facto specificity. If the program is *de jure* specific, that is the end of the specificity analysis. If, however, the program is found to be *not de jure* specific, then the administering authority must further determine whether the program is *de facto* specific, applying sub-paragraph (c) of the Subsidies Agreement. Four factors inform this analysis:

> Pursuant to section 771(5A)(5)(D)(iii) of the Act [i.e. Uruguay Round implementing legislation] a subsidy is *de facto* specific if one or more of the following four factors exists: (1) the number of enterprises, industries or groups thereof which use a subsidy is limited; (2) there is predominant use of a subsidy by an enterprise, industry, or group; (3) there is disproportionate use of a subsidy by an enterprise, industry, or group; (4) the manner in which the authority providing a subsidy has exercised discretion indicates than an enterprise or industry is favored over others.[30]

In U.S. practice, Commerce examines the factors sequentially, though this is not required by the Subsidies Agreement text. The first factor cannot be taken literally: *all* numbers of enterprises and industries are mathematically limited. As explained in the SAA, where the number of enterprises or industries using a subsidy is 'not large' the first factor alone would justify a finding of specificity. Where the number is 'very large' then Commerce analyzes factors (2) and (3) together, looking for dominant or disproportionate use by enterprises or industries under investigation. Factor (4) is accorded the least emphasis and typically is used only to clarify the analysis of the first three factors.[31] But U.S.

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[29][Are there cases where more narrowly drawn subsidies have been found *de jure* non-specific?]

[30]*Certain Laminated Hardwood Trailer Flooring from Canada: Preliminary Negative Countervailing Duty Determination*, 61 FR 59079,59082 (November 20, 1996).

[31]As the SAA explains, 'The Administration intends to continue existing Commerce practice of according the least significance to the factor regarding the exercise of discretion.' Recognizing that administering authorities are often required to exercise discretion in determining eligibility for all manner of government programs, the Administration has held that exercise of discretion is not of itself sufficient to establish specificity. 'The discretion factor would have more value in connection with an analysis of other *de facto* specificity criteria.' SAA at 261,

law and practice is clear that specificity shall be found if any *one* of the first three factors exists. Id. Commerce has expressly held that purposeful government targeting of a particular enterprise or industry need not be shown.[32] The question is one of effect: whether a relatively few firms or industries receive a 'disproportionate' share of subsides.

Under Commerce practice, predominant or disproportionate use is determined by examining the investigated firms' or industries' share of total benefits actually disbursed under a subsidy. Sometimes Commerce will try to put this ratio in perspective by comparing it to the share of production accounted for by firms or industries under investigation, as a proportion of production value of all 'eligible' firms. If the investigated firms' share of benefits is large, or if it is significantly larger than the investigated firms' share of total production (with shares being measured by reference to the total universe of eligible participants), then Commerce is likely to find predominant use.

A few examples may help to further clarify the interpretation of the *de facto* specificity test. In *Live Swine from Canada*, Commerce found that where the universe of eligible users was over 80 commodities, that was not *de jure* specific, but the fact that only 11-13 actually received benefits made the program *de facto* specific.[33]

In *Magnesium from Canada*, the state-owned enterprise Hydro-Quebec sold electricity to eligible industrial customers under long-term contracts which tied electricity prices to fluctuations in customers' profitability and prices. Eligibility for this arrangement was limited to (1) capital intensive firms, (2) requiring at least five Megawatts of electricity, (3) for which energy represents a major factor in production costs (15 percent or more) and (4) for which energy costs constitute a major factor in choice of location. Commerce did not find this program *de jure* specific, but did find *de facto* specificity because only 14 companies enrolled in the program while over 300 users were nominally eligible.[34]

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reprinted in Applebaum at 237.

[32]Certain Softwood Lumber Products from Canada, Final Affirmative Countervailing Duty Determination, 57 FR 22570 (May 28, 1992).

[33]59 FR 12243, March 16, 1994.

[34]*Magnesium from Canada*, 57 FR 30946, July 13, 1992.

In *Dutch Flowers* a subsidy program nominally available to all agricultural producers was found not *de jure* specific. But the subsidies received by horticulture firms were deemed *de facto* specific because horticulture received 50 percent of the subsidy, while accounting for only 24 percent of Dutch agricultural production.[35]

In *Certain Steel Products from Belgium (Part IV)* Commerce found that the respondent firms's share of total disbursed benefits (17-20 %) was 'disproportionate' because it made the steel industry the 'largest single recipient.'[36] Inasmuch as some industry will *always* the largest single recipient of any subsidy program, however widely disbursed, this reasoning must be considered dubious.

In *PPG I,* however, Commerce declined to find *de facto* specificity despite a showing by petitioners that 9 companies accounted for more than 50 percent of all benefits disbursed under the program, and 23 companies got 60 percent.[37] As the Court of Appeals for the Federal Circuit observed of the same program challenged in a different case, 'If only 60 percent of benefits are received by 23 companies in varying industries, one can only imagine the number and variety of companies which received the remaining 40 percent of benefits.'[38]

In our case, we have seen that 'surplus' permits are likely to be concentrated in two categories of firms: (1) firms with historically high emissions coupled with significant, relatively low-cost reduction potential; and (2) firms exiting the industry or diverting manufacturing overseas (if they are allowed to keep receiving permits in respect of closed facilities). Without knowing the number and diversity of firms that will comprise these categories, it is impossible to predict whether either or both would be considered 'specific.' All we can say with confidence at this point is that the more widely distributed

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[35]*Final Affirmative Countervailing Duty Determination: Certain Fresh Cut Flowers from the Netherlands,* 52 FR 3301 (Feb. 3, 1987). For a similar analysis, and result, see *Final Affirmative Countervailing Duty Determination: Cold-Rolled Carbon Steel Flat-Rolled Products from the Republic of Korea*, 49 FR 47284 (Dec. 3, 1984).

[36]*Certain Steel Products from Belgium (Part IV)*, 58 FR 37273, July 9, 1993,

[37]This finding was reported and upheld in *PPG Industries v United States*, 746 F.Supp.119 (CIT Aug. 9, 1990).

[38]PPG II, 978 F.2d 1232 (CAFC 1992).

the pattern of subsidy use under any program, the less likely it is that a future WTO panel or national administering authority will find it to be *de facto* specific.

Injury or serious prejudice

Under the Subsidies Agreement, government-provided financial contributions that provide a benefit to 'certain' (read specific) enterprises are actionable if and only if they cause injury or serious prejudice to the interests of a competing industry (or group of industries) in another country.[39] Recall that remedies to actionable subsidies may take the form of WTO dispute settlement, with respect to impacts in the exporting country or in third-country markets that cause or threaten 'serious prejudice'; or national countervailing duty (CVD) actions with respect to impacts in the importing country that cause or threaten 'injury.'

With regard to national CVD determinations, Article 15 paragraph 1 (Paragraph 15.1) stipulates that determinations of injury are to be based on 'positive evidence and involve an objective examination of both (a) the volume of subsidized imports and the effect of subsidized imports on prices in the domestic market for like products and (b) the consequent impact of these imports on the domestic producers of such products.' Paragraph 15.2 clarifies that administering authorities should consider whether there has been 'a significant increase in subsidized imports,' or 'significant price undercutting by subsidized imports as compared with the price of a like product in the importing Member,' or 'whether the effect of such imports is otherwise to depress prices to a significant degree, or prevent price increases, which otherwise would have occurred.' Paragraph 15.4 lists a host of factors relevant to the examination of the effect of subsidized imports in the importing country market.

The analysis described in paragraphs 15.2 and 15.4 is directed to the effect of subsidized imports, not the effect of subsidies themselves. The difference is important because subsidized imports could undercut prices, depress prices or capture market share in a foreign market for a wide variety of reasons that are totally unrelated to the effects of subsidies, or the magnitude of the subsidies conferred. For many years prior to the Uruguay Round the United States took the position that 'injury' could be shown solely on the basis of the effects of subsidized imports, without regard to the magnitude or impact of the

[39]See Subsidies Agreement, Articles 5, 6 and 15.

subsidies margins themselves. Paragraph 15.5 of the Subsidies Agreement does not change that, although it seems to, at first glance.[40] Therefore, U.S. manufacturers receiving surplus allowances that are found to be specific may face countervailing duty orders abroad if their exports to other markets cause 'injury' to foreign producers of like products, regardless of whether the injury to competitors actually results from the value of the surplus permits received by U.S. firms. The injury analysis becomes unpredictable from the standpoint of U.S. manufacturers and/or designers of tradable permits schemes.

The serious prejudice analysis is likely to be more circumscribed. Article 6 paragraph 2 of the Subsidies Agreement holds that 'serious prejudice shall not be found if the subsidizing member demonstrates that the subsidy in question has not resulted in any of the effects enumerated in paragraph 3.' The effects enumerated in paragraph 3 largely track the effects described in Article 15 (price undercutting, price depression, market share capture, etc) with one crucial difference: each of the objectionable effects mentioned in paragraph 15.3 must be attributable to 'the effect of the subsidy,' *not* the effect of subsidized imports. Thus, the magnitude and effect of the subsidy *does* matter in serious prejudice cases. Because the margin of subsidy is relevant to serious prejudice determinations, the likelihood of a serious prejudice finding can be minimized by measures (mentioned above) to minimize prospects of large accumulations of surpluses: (1) amending the allocation formula to reflect a 'best guess' of the average emissions reduction potential for various classes and categories of sources; and (2) implementing Option I under a rule which limits (perhaps time limits) the ability of firms to accrue permits in respect of closed or downsized manufacturing facilities.

Option II

Option II seeks near total coverage of carbon emissions within an administratively manageable cap and trade permit scheme. It does this by requiring, and restricting, permits for the *sale* of all fuels –

[40]The first sentence states that, 'It must be demonstrated that the subsidized imports are, through the effects of subsidies, causing injury within the meaning of this Agreement.' But the sentence is modified by a footnote which states 'As set forth in paragraphs 2 and 4.' As seen, these paragraphs deal exclusively with the effects of subsidized imports. And the remainder of Paragraph 15.5 itself is devoted to a discussion of how the effects of subsidized imports should be examined. It appears that the countries demanding greater attention to the magnitude and effect of subsidies in the injury analysis *almost* got their concerns addressed, but not quite. Although the United States' Statement of Administration Action is discretely silent on this nuance, no mention is made there or in the U.S. implementing legislation of any change in the U.S. approach, and I expect that U.S. doctrine and practice remains focused on the effect of subsidized imports, not the effect of subsidies themselves.

coal, oil and natural gas – that emit carbon when combusted, and by focusing the permit requirement on the narrowest points in the energy distribution chain. Under Option II, permits would be auctioned (rather than given away) at the point of extraction for coal, refining for petroleum, and distribution for natural gas. Permits would also be required for imports of refined petroleum products. Suppliers wishing to conserve scarce permits would face an incentive under Option II to switch to less carbon intensive fuels/products. All users of energy would encounter energy price increases (highest for more carbon-rich coal) that would encourage them to conserve fuel and/or switch to lower carbon fuels.

The Interim Report does not specify how the permits will be calibrated in each case, or whether permits will be tradable across these four categories. The Report notes in Appendix 3-1 that supply-side allocations (as in Options 2 and 3) could be based on carbon content of the fuel, the energy content, or 'on a 'performance' metric, for example linking the allocation to a low carbon-content fuel standard' such as natural gas. Report at 3-45. The chief advantage of energy content and performance based metrics – as I read Appendix 3-1 – is that they avoid advantaging high carbon coal producers in a scenario like Option III where permits are awarded free of charge on the basis of past carbon, or energy, or natural-gas equivalent carbon emissions. Such variations would not seem to have any particular advantage in the context of auctioned permits, so I assume the preference under Option II would be for permits expressed in units of carbon content of fuel sold.[41]

WTO Analysis

Subsidies issues seem unlikely to arise in this option since all permits are auctioned. However, issues of national treatment could arise if the option is implemented in a way that discriminates against foreign products. It is difficult to anticipate all the possible ways that ingenious national regulators and/or domestic producers might conceive to discriminate against foreign competitors. Two obvious modes of discrimination present themselves, however: (1) requiring fuel/petroleum product importers to hold permits at a different (probably earlier) stage of processing than applies to domestic producers

[41]As the authors of the Interim Report are no doubt aware, the 'carbon content' of a ton of fuel sold does not bear a fixed correspondence to actual carbon emissions from combustion. The latter depends significantly on the efficiency of the combustion process, which may vary dramatically depending on the nature, age, and sophistication of the combustion process used. Since the details of later combustion cannot be known in advance at the point of supply, I assume that the administrators of Option II would base carbon-content calculations for permit purposes based on some 'average' or 'modeled' combustion scenario.

(without making appropriate adjustments), so that foreign producers have to purchase more permits per unit than their similarly situated domestic counterparts; or (2) calculating the carbon content of foreign fuels/products in a way that requires them to hold more permits per unit than similarly situated domestic producers. Barring the exercise of such invidious ingenuity at the implementation stage, I see no WTO problems arising from Option II.

Option III

Option III envisions a combination of (a) energy efficiency product standards for small sources (transport vehicles, residential and small commercial furnaces, air conditioning units, lighting fixtures and appliances) and (b) a cap-and-trade scheme covering fossil fuel producers, who would be required to hold one permit for each ton of carbon-equivalent energy sold. The overall cap would be set at 1300 MtC per year, lowered by the amount deemed necessary for any set aside programs. These 1300 million permits would be distributed each year among oil and gas producers (not refineries or pipelines), coal extractors *and* coal combustors. The cap would be allocated to oil, gas and coal producers according to each producer's pro rata share of carbon production in some base year such as 1990.[42] Half of the coal producers' allocation, however, would be diverted to large coal *combustors* based on their consumption in the base year. Coal combustors would have no regulatory need for these permits and could sell (or trade) them back to their coal suppliers or, if they switch fuels, back to their oil and gas suppliers; or combustors could simply sell the permits on the open market. The award of 'freeby' permits to coal combustors is intended to help compensate them for the cost of fuel switching and/or process re-design to minimize coal use.

WTO Analysis

Since Option III treats oil and gas producers, coal producers, and coal combustors separately, each requires a separate WTO analysis.

[42]Alternatively, permits might be awarded according to each producer's pro rata share of energy content, or natural-gas equivalent carbon content, thereby favoring oil and gas producers even more strongly. *See* Interim Report, Appendix 3-1.

Treatment of oil and gas producers. The treatment of oil and gas producers under Option III raises issues of national treatment and subsidies. The United States imports a substantial portion of the oil and a small but growing fraction of its natural gas supply. Article III of the General Agreement on Tariffs and Trade 1947 (incorporated in the WTO Agreement and referred to hereafter as 'GATT") requires that oil and gas imports receive national treatment in the allocation of permits, i.e., that they receive permits under the same formula that applies to domestic oil and gas unless some compelling policy justification can be advanced for distinguishing between foreign and domestic oil and gas.[43] Since there are no real environmental reasons to distinguish between domestically-produced and imported oil and gas, the exceptions of GATT Article XX would not provide a basis for discrimination. The national security exceptions of GATT Article XXI clearly would allow the United States to deny permits to Iran, Iraq and other pariah nations. The United States has construed that article to authorize banning imports from these countries entirely.[44] But the national security exception obviously would not justify discriminating against imports from 'friendly' countries.

Does this present a political problem for Option III in the United States? Not so long as foreign competitors continue to export fossil fuels to the United States up to the level of their allocated permits. It has long been understood that the national treatment obligation of the GATT extends to imported oil and gas. The recent WTO decision in *Standards for Reformulated and Conventional Gasoline* re-affirmed that principle and the United States' willingness to amend its laws and regulations to conform to

[43]A restriction on imported oil and gas would seem, at first blush, to more closely resemble a quantitative import restriction subject to GATT Article XI than an internal regulation covered by GATT Article III. However, a well-known Note to Article III stipulates that "any law, regulation or requirement . . . which applies to an imported product and to the like domestic product and is . . . enforced in the case of the imported product at the time of importation, is nevertheless to be regarded as . . . a law, regulation or requirement . . . subject to the provisions of Article III." See General Agreement on Tariffs and Trade (1947), Note ad Article III, reprinted in, inter alia, *Dispute Settlement Panel Report on United States Restrictions on Imports of Tuna*, 33 I.L.M. 839 (1994), para. 5.8. That clearly is the situation created by Option III, which aims to restrict overall sales of coal, oil and gas by domestic and foreign producers of fossil-fuel products.

[44]GATT Article XXI contains 'security exceptions' which provide legal cover for a wide range of foreign-policy or security-based trade restrictions and discriminations that the United States has long maintained and continues to maintain against 'enemy' or 'unfriendly' states. Pursuant to these exceptions, the United States can and would refuse to issue emissions permits to extractors based in Iran, Iraq, North Korea, Cuba, Libya, and the like. This would present no problem under GATT law. (Moreover, none of the extractors in these countries could have any baseline of exports into the United States that would justify an allocation, since these countries are subject to long-standing and comprehensive U.S. trade embargoes.)

that decision signals, I believe, a political acceptance in the United States that imported oil and gas, like other products, are entitled to national treatment under U.S. regulations.[45]

A political hue and cry is likely to develop in the United States under Option III only if, or when, a foreign producer chooses a diversion or exit strategy -- reducing fossil fuel exports to the United States and taking revenues from the sale of now-surplus permits to cross-subsidize overseas production in other areas, say, cars, shoes or petrochemicals.[46] At this point, U.S. producers of cars, shoes or petrochemicals will cry foul, saying that the U.S. government is indirectly subsidizing foreign competition at the expense of the American energy consumer (whose supplier is forced to absorb the cost of buying the surplus permits). Should such a scenario develop, the Administration would come under strong domestic political pressure to curtail issuance of permits to foreign firms who fail to use them to cover exports to the United States.

There are two ways to resolve this dilemma (should it materialize) on terms consistent with GATT/WTO. The first is simply to ban the cross-subsidization of all products, foreign or domestic, using revenues derived from the sale of surplus permits.[47] However, such a rule would limit the economic

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[45]*See World Trade Organization Appellate Body: Report of the Appellate Body in United States - Standards for Reformulated and Conventional Gasoline*, 35 I.L.M. 603 (1996).

[46]What is a 'foreign' enterprise, for purposes of understanding the domestic politics of cross-subsidies? Clearly, U.S.-owned firms that manufacture in the United States are domestic, and foreign-owned (particularly state-owned) firms that manufacture abroad -- such as Petroleos de Mexico (PEMEX) or Petroleos de Venezuela (PDVSA) -- figure as purely 'foreign' firms in the U.S. political process. The gray area consists of principally U.S.-owned and managed firms (like Exxon) who elect to set up a manufacturing operation overseas, and traditionally foreign-owned and managed firms (like British Petroleum and Royal Dutch Shell) who have a large presence in the United States. Does national identity in the U.S. political process follow ownership or place of manufacture? The question is a hard one. The discussion that follows assumes that national identity will follow ownership: i.e., that Congress will not begrudge surplus permits to Exxon even if that company applies some of the revenues towards setting up a manufacturing plant in Indonesia. I leave open the possibility that firms such as BP and Shell that have a large U.S. presence might also be defined as 'domestic' firms for subsidies eligibility purposes. Since the WTO Agreement on Trade-related Investment Measures (TRIMS Agreement) incorporates GATT Article III by reference, and since GATT Article III contains a subsidies exception, it appears that the TRIMS Agreement would not preclude the United States from conditioning 'domestic' status for subsidies purposes on an agreement by a recipient firm to apply the proceeds from sale of surplus permits exclusively to U.S. manufacturing operations.

[47]The ban would apply to all producers, foreign and domestic. It would be enforced not by WTO cases or countervailing duty actions, but simply by denying future permit allocations to any company found in violation of the ban. Evidentiary problems would not arise since companies wishing to continue to receive future allocations of permits would have to agree to open their books to verify compliance with the cross-subsidy ban. GATT national treatment obligations would be respected since foreign and domestic energy producers would be treated

incentives for companies to exit (or partially exit) from high-carbon activities -- even though exit (or partial exit) is the environmentally preferred result.

The second way to deal with the political problem of appearing to 'subsidize' foreign suppliers (if the problem arises) is simply to allow U.S. fossil fuel suppliers, but not foreign suppliers, to sell 'surplus' permits. Foreign suppliers would be subject to a use-or-lose rule in respect of permits issued them. There is some risk that a WTO panel would regard this as a facial discrimination that violates GATT Article III. The better view, however, is that the issuance of free permits not needed to meet regulatory requirements is, in essence, an indirect subsidy on U.S. oil and gas firms leaving high-carbon activities. 'Discrimination' against foreign suppliers is simply a way of limiting the benefit of the subsidy to U.S. companies. GATT Article III.8(b) explicitly exempts subsidies from national treatment requirements.

In practice, oil and gas producers could generate large surpluses only by reducing sales in the United States market below their baseline-year levels. Given that coal conversion is likely to *increase* the demand for oil and gas, why would any profit-maximizing oil and gas company choose to reduce its U.S. sales? Mainly because, under Option III as written, every unit of oil/gas that was sold by a company in the allocation baseline year generates one permit a year, in perpetuity, for the selling company. If the corresponding unit of oil and gas is diverted overseas in the allocation year, that generates a subsidy -- in the form of a one free, salable permit each year -- for the diverting oil and gas company. Given this incentive, oil and gas companies with historic U.S. sales almost certainly will choose to divert some traditional U.S. supplies of oil and gas to overseas markets. That diversion will create a price-spike of oil and gas in the United States which will either lure in new suppliers who will buy permits to meet the demand, or reduce the incentive for historic suppliers to divert. Eventually, supply and demand will equilibrate at a U.S. price which equals the overseas price of oil and gas plus the market value of the associated permits. From the standpoint of U.S. oil and gas consumers, Option III will be identical to Option II in terms of energy price impact: unit energy prices will increase by the full amount of the cost of purchasing the corresponding permits. But the revenues that would go to the

identically. Cross-subsidization of low-carbon energy products using revenues from sale of surplus permits would be allowed because (1) it furthers the environmental purpose of encouraging a transition from high-carbon to low-carbon fuels, and (2) barring *any* cross-subsidization would undermine the compensatory purpose of an exit rule that allows firms leaving an energy industry to go on receiving surplus permits (see discussion above).

government under Option II's auction system will be lavished on historic oil and gas suppliers as subsidies under Option III.

Few foreign countries are likely to complain of receiving subsidized oil and gas from the United States or erstwhile U.S. suppliers. But the U.S. political opposition to such a scheme could be considerable, and WTO subsidies issues could arise if oil and gas companies use revenues from the sale of surplus permits to 'cross-subsidize' other manufactured products into which those companies diversify: indirect subsidies are subsidies. One way to avoid this result is to craft an anti-diversion rule for Option III: e.g. *reduce* each oil and gas firm's entitlement to 'surplus' permits (permits in excess of allocation-year U.S. oil and gas sales) by the amount of any *increase* in that firm's overseas sales of oil and gas in the allocation year (or increase above a certain level) compared to the baseline year.

Treatment of coal extractors. U.S. imports of coal are very small currently (.18 Quads in 1995) but growing. As discussed above in connection with oil and gas producers, GATT Article III requires that any pro rata allocation of permits to domestic producers must extend to foreign coal extractors as well. The only permissible distinction between domestic and foreign coal producers is that foreign coal producers could be subject to a use-or-lose requirement, i.e., denied access to salable 'surplus' permits. This, however, would raise subsidies issues which this section will explore.

Coal extractors will face three adverse impacts under Option III: (1) the overall number of permits allocable to the coal sector in aggregate will fall well short of what is needed to support historic levels of sales (with the magnitude of the shortfall dependent on whether permits are awarded on a carbon, energy, or 'performance' basis); (2) over half of the limited number of permits allocable to the coal sector will be given to combustors instead of extractors; and (3) coal combustors will have large incentives to switch fuels, contributing to a reduced customer base for coal. Faced with these incentives, some coal suppliers doubtless will remain in business to supply customers (such as steel and cement) whose processes leave them few attractive alternatives to coal. However, the dominant response of U.S. coal extractors to Option III is likely to be either (a) the *diversion* of domestic coal to foreign markets; or (b) the *exit or partial exit* of a portion of the U.S. coal industry from the business of mining coal.

The diversion scenario is distinctly problematic from an environmental and subsidies perspective. The United States is a significant coal exporter: over the last 25 years, U.S. coal exports have ranged from 53 million short tons (1973) to 105 million tons (1990). The U.S. exported 88.5 million tons of coal in 1995.[48] Certainly, one attractive option for U.S. coal extractors faced with scarce permits and declining demand for domestic coal will be to drastically reduce domestic sales, and use the revenues from sale of now-surplus permits to cross-subsidize exports of coal to foreign markets. From an environmental perspective, diversion of U.S. coal to foreign markets will simply depress the price of, and encourage the use of, coal abroad -- an environmentally perverse result. From a WTO perspective, importing countries without an indigenous coal supply are unlikely to complain of subsidized coal imports. However, countries that have domestic coal industries and that either import U.S. coal or compete with U.S. coal in third markets may bring subsidies challenges to protect their traditional markets.

In these challenges, the allocation of surplus permits to U.S. coal extractors will be considered a financial contribution; the benefit will be measured by the total yearly revenues from surplus permit sales divided total coal sales of each company; and the specificity test will certainly be met. Coal will be considered a "specific" industry.[49] Thus, the only legal defenses to a subsidies challenge will the fact-specific, economic defenses that the subsidy margin is *de minimis*, and/or that the subsidy/subsidized imports cause no serious prejudice/injury, respectively, to complainants. The likely success, or not, of these economic defenses is hard to predict. One the one hand, Option III calls for half the coal

[48]*Statistical Abstract of the United States (1997)*, Table No. 937, p. 590 and Table No. 930, p. 587.

[49]Foreign governments/WTO panels are not likely to buy the argument that subsidies to coal extractors should be considered integrally linked to subsidies to coal combustors under Option III, with specificity determined according to the numerousness and diversity of extractors and combustor combined. The 'integral linkage' doctrine does exist in U.S. practice, where it has been developed to allow for the linkage of specificity determinations in respect of subsidy programs that are nominally separate but in fact "have the same specific purpose and bestow the same types of benefits on different users." See *Live Swine from Canada: Final Results of Countervailing Duty Administrative Reviews*, 61 FR. 52408, 52423 (Oct. 7, 1996). But the doctrine has been narrowly construed. *Id.* at 52514. Commerce has required that different programs have the same *specific* purpose ; sharing the same general purpose is not sufficient. *Id*. at 52421. Moreover, the different programs must "treat industries equally." *Id*. at 52422. See also *Carbon Steel Wire Rod from Saudi Arabia: Final Results of Countervailing Duty Administrative Review*, 59 FR 58814, 58817 (Nov. 15, 1994). Here, Option III certainly could be characterized as a single program with the single general purpose of reducing carbon emissions from the United States. However, its specific treatment of coal extractors, oil and gas producers, and coal combustors, respectively, is quite different and serves somewhat different specific purposes. The specific purpose of the extractor permit requirement is mainly regulatory; the purpose of the combustor permit award is mainly compensatory. Therefore, the issuance of surplus permits to extractors and combustors under Option III is not likely to be linked for specificity determination purposes.

extractors' supply of permits to siphoned off to combustors. Moreover, a substantial cache of permits will be needed to supply remaining inelastic U.S. coal demand in industries like steel and cement that depend on coal. On the other hand, any rule that awards permits in respect of historic, domestic coal sales that are diverted overseas will create a very significant incentive to export and could yield quite substantial surpluses. If economic analysis reveals the diversion scenario to be credible, it may be desirable to fashion an anti-diversion rule for coal extractors as well as oil and gas producers.

The second possible strategy for coal extractors under Option III is one of exit or partial exit from the industry. Certainly a mere downsizing of operations would raise not WTO issues if the output reduction is limited to the amount dictated by scarcity of permits: there would be no surplus permits and no subsidy. The main subsidies litigation risk associated with an exit or partial exit strategy involves a scenario in which coal extractors reduce operations enough to generate sizable volumes of surplus permits, sale of which yields a non-*de minimis* subsidy for (i) remaining coal sales; and/or (ii) non-coal products manufactured by the same firms.

Subsidization of remaining coal sales might conceivably trigger a challenge by foreign importers (or would-be importers) of coal who would argue that the revenues provided by sale of surplus permits cause 'serious injury' by enabling U.S. coal extractors to cut prices and maintain U.S. market share at a level greater than they otherwise would enjoy. However, such a predicate for a 'serious injury' claim would be difficult to establish in practice inasmuch as domestic extractors, by definition, can create 'surplus' permits under Option III only to the extent that they *reduce* their own sales of coal in the United States.[50] It seems unlikely, furthermore, that foreign importers would bring a WTO challenge to complain of lost sales in an historically minuscule and shrinking U.S. market for imported coal.

Subsidies to coal extractors in the form of salable permits would also be deemed subsidies to any non-coal products manufactured by those same firms. Indeed, one environmentally desirable consequence of Option III might be to encourage coal firms to exit the industry in favor of other lines of

[50]Foreign exporters may, of course, argue that reduced sales are not the same thing as reduced market share. Subsidies can cause serious injury if they allow domestic manufacturers to preserve or expand their relative share of a shrinking market. Nonetheless, the difficulty of the case when combined with the smallness of the prize (a tiny and shrinking U.S. coal market for imports) is likely to dim any enthusiasm for WTO litigation on the part of foreign coal extractors.

work. This response, however, could provoke a WTO challenge by foreign competing manufactures of those subsidized non-coal products (e.g., cars, shoes, petrochemicals, etc.). The merits of such a challenge would depend on the extent to which coal extractors (a) substantially exit the coal mining industry (generating large revenues from sale of now-surplus permits); and (b) manufacture a limited range of non-coal products (so as to focus cross-subsidies on specific categories of products). It seems improbable that both these factors would come together in practice but, if they did, a subsidies issue might arise. If further analysis reveals there *is* a real prospect of sizable surpluses accruing to coal extractors who are subsidizing specific new products, then it may be desirable to enact a rule limiting the time period in which coal companies can continue to amass permits in respect of historic U.S. coal sales.

Treatment of coal combustors. In a happy contrast to the situation of extractors -- who would have to hold one permit for each unit of fuel supplied, while receiving fewer permits than they need -- coal *combustors* under Option III would receive their permits free of charge and free of any corresponding regulatory obligations.[51] All permits issued to combustors would be 'surplus' and could be sold back for cash or fuel price offsets to fuel extractors (oil, gas or coal) who need permits. Thus, the financial contribution and benefit implicit in the award of free permits to coal combustors would render them a clear case of indirect subsidy.[52]

Here, 90 percent of the permits awarded coal combustors under Option III would flow to coal-fired electric power plants and the remaining 10 percent would be distributed widely, with most of that 10 percent concentrated in four major industries: primary metals, paper and paper products, chemicals and allied products, and food products. The award of 90 percent of the permits to coal-fired electric power plants would clearly constitute a 'specific' subsidy to those plants. As we observed in the discussion of Option I, although most electric utilities do not sell anything moving in international trade, they do sell

[51]This important aspect of Option III is not stated directly in the Interim Report; it is implied in the Report and confirmed by telephone conversation with K. John Holmes, May 26, 1998.

[52]Again, the United States cannot defend the scheme against subsidies challenge by pointing out that free permits to coal combustors are offset by the higher fuel prices to those combustors. That fact is irrelevant under the WTO. The price signal generated by Option III is similar in economic effect to an economy-wide fuel tax, with a partial rebate of the tax to certain industries. The Subsidies Agreement is clear that a rebate of general taxes to selected industries is an actionable subsidy if the industries thus favored are few enough to be 'specific.' The same conclusion is likely to apply to a permit requirement which produces a economy-wide increase in the price of fuel, while compensating coal combustors with valuable, salable permits.

electricity to manufacturing firms that export goods. These firms would be deemed to have received an 'upstream subsidy' *if and to the extent that* the utilities' revenues from sale of permits are (1) passed on to customers in the form of lower electricity prices than would otherwise obtain; (2) bestow a competitive advantage on the downstream products, and (3) have a significant effect on the cost of manufacturing the downstream products.[53] Under U.S. practice, at least, the fact that permit subsidies are 'specific' to electric utilities would render them *per se* specific to all the utilities' customers as well. However, unless the utilities were found to have channeled cost savings to certain favored customers, the benefits of permits (those passed on to customers) would be distributed over all utility customers. Further economic analysis would be needed to determine whether the passed-through electricity price benefits to any single customer would be found competitively significant when allocated over the customer's production lines.

The remaining 10 percent of the coal combustor's permits awarded directly to manufacturing facilities would probably not be considered specific subsidies. Many different firms and industry groups would be eligible for, and would receive permits under the scheme, and the allocation of only 10 percent of the permits among the four broad industries described above is not likely to render such permits *de facto* specific.

Option IV

Option IV inverts Option III, with a twist. Instead of requiring extractors to hold permits to sell and issuing 'freeby' permits to large combustors that can be sold back to extractors (as in Option III), Option IV would require large combustors to hold permits to emit (as in Option I) and issue 'freeby' emissions permits to compensate coal extractors. Since coal extractors would not need any of these emissions permits issued to support their own operations, they would be free to sell all the permits issued to them back to regulated entities who do need permits to meet regulatory obligations. (Option IV is thus made politically attractive to coal extractors in the same way that Option III is attractive to coal combustors.) Revenues obtained by coal extractors from sales of permits could then be (1) retained, paid to employees or dividended to shareholders; (2) used to cross-subsidize a transition into other lines of work; (3) used to offset the purchase price paid by domestic coal consumers (thereby reducing their disincentive to shift out of coal); and/or (4) used to cross-subsidize export sales of coal. These are the

[53]See *Hardwood Trailer Flooring from Canada*, 62 FR 5201, download p. 4 (February 4, 1997).

options open to coal extractors under Option III; the difference is that under Option IV, coal extractors would have many more 'surplus' permits to work with. As in Option III, the U.S. government is likely to preclude the fourth response (cross-subsidizing exports) by regulation since using permit revenues to expand exports of coal would tend to displace, rather than reduce, global coal combustion, thereby undermining the global environmental objectives of the scheme.

The 'twist' embedded in Option IV is that auto manufacturers who sell in the United States market also would be required to hold emissions permits (allocated on the basis of each automaker's future emissions commitment for its fleet, on the basis of standard assumptions about vehicle miles driven). Automakers would be allowed to buy permits from, or sell permits to, combustors or coal extractors on a market basis, subject to the regulatory requirement that each automaker must hold one permit for each unit of future emissions predicted from its fleet.

WTO Analysis

The treatment of *automakers* under the cap-and-trade scheme (the 'twist') would not violate WTO rules provided it is implemented in a non-discriminatory fashion. In particular, fleet emissions must be modeled via methodologies that are consistent for all fleets and do not discriminate against foreign manufacturers. Any 'subsidies' to automakers conferred under Option IV by means of the availability of 'surplus' permits would not be actionable if they are made available on a non-discriminatory basis to foreign as well as domestic manufacturers. Given the near-total blurring of national identity that currently characterizes the auto industry it seems unlikely that the prospect of bestowing subsidies on, say, Honda or Toyota would be politically explosive – particularly if those 'subsidies' must be earned by emissions performance, and all automakers are equally able to earn them on the same terms.

The issuance of free permits to *large stationary combustors* is also unlikely to raise major subsidies issues since such combustors, under Option IV, will not receive any meaningful volumes of surplus permits except to the extent they exit their industries, and they are unlikely to exit their main line of business merely in order to generate a relatively meager ration of surplus permits.

The preferential treatment afforded *domestic coal extractors*, on the other hand, would raise the subsidies issues discussed in connection with the treatment of coal extractors under Option III, aggravated

by the fact that coal extractors under Option IV would receive permits unencumbered by regulatory obligations, and thus would have many more 'surplus' permits to work with. In practice, the United States is an insignificant importer of coal, so foreign governments are not likely to bother complaining of domestic coal subsidies on import substitution grounds. The main risk of a subsidies challenge would arise if, and to the extent that, U.S. coal extractors choose (and are allowed) to reduce U.S. sales (through downsizing production or diverting domestic coal sales overseas), continue to receive permits in respect of historic U.S. sales, and use the revenues from permit sales to cross-subsidize coal (or other product) sales in foreign markets. In this event the by-now-familiar subsidies issues would arise: the value of surplus permits thus awarded would be financial contributions that confer a benefit on a specific industry: coal extraction. They would be actionable if they caused injury or serious prejudice to interests of competing producers of a like product.