

# 9 Bootleggers, Baptists and the global warming battle

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## Introduction

Since the 1997 International Conference on Climate Change in Kyoto, Japan, the world's industrialised nations have been grappling with negotiations over the Kyoto Protocol. Passionate expressions of concern about global warming have given way to tough political bargaining over who bears the pain, most recently seen in the tough negotiations at the Sixth Session of the Conference of the Parties to the Protocol (also known as COP6) in November, 2000.<sup>1</sup>

The most stunning blow to the prospects for the Kyoto Protocol came in March 2001, when the current US presidential administration decided to reject it.<sup>2</sup> Though some congressional members have publicly groused about the decision, there is little doubt that most of Congress supports Bush's action.<sup>3</sup>

The international response to Bush's action? Generally speaking, outrage. European leaders accused Bush of being 'irresponsible' and 'arrogant', while Margot Wallstrom, the Environment Commissioner for the European Union, said, 'We cannot allow one country to kill the process.'<sup>4</sup> British Environment Secretary Michael Meacher said that Bush's decision could make the planet 'uninhabitable',<sup>5</sup> and Deputy Prime Minister John Prescott accused the United States of 'free-riding' and of sitting in 'glorious isolation'.<sup>6</sup>

The outrage expressed by the Europeans may, of course, be slightly hypocritical. None of the EU countries had ratified the Kyoto Protocol themselves when the USA pulled out. And little wonder: in the words of *The Economist*, 'The EU's dirty little secret is that very few of its own members are on track to meet their tough Kyoto targets by

the deadline anyway.<sup>7</sup> Canada's Environment Minister, David Anderson, has even said that the EU deliberately sabotaged the Kyoto negotiations by 'adopt[ing] a position they knew would force the United States to pull out'.<sup>8</sup> Why? In the words of journalist Gregg Easterbrook, 'Because Europe didn't want to do anything about the greenhouse effect but wanted the United States to take the blame.'<sup>9</sup>

The fury over Kyoto's failure is misplaced. Good evidence suggests that the Kyoto Protocol would have been a potentially huge drag on the US economy, while producing environmental benefits that would in all likelihood be too small to measure. Moreover, the burden borne under Kyoto would have been unevenly placed: if the US had signed the Kyoto Protocol, it would have been required to reduce the emissions projected for the years 2008 to 2012 by some 40% to meet its Kyoto goal.<sup>10</sup> Yet the developing world, which emits large quantities of greenhouse gases (GHGs), would have faced no limits at all.

With the majority of the world's population free to expand emissions, it is highly likely that total carbon emissions would have continued to increase almost unchecked by Kyoto, rather than decreasing. This fact suggests that Kyoto negotiations involved much more than a public-spirited commitment to reduce carbon emissions. Far from an objective solution to climate change, the Kyoto Protocol created a new arena for nations, groups and companies to pursue their special interests.

This chapter explores the 'bootleggers and Baptists' theory of economic regulation to shed light on the Kyoto negotiations.<sup>11</sup> This theory best explains the actions and manoeuvring displayed by many countries and corporations, in both their support for and opposition to Kyoto. We conclude that various nations and corporations have tried to influence Kyoto's terms to serve their own parochial interests.

## The Kyoto Protocol

### *The origin and terms of Kyoto*

The fundamental premise of the Kyoto Protocol is that developed countries, which are large energy users and GHG producers, should bear the brunt of reducing emissions to avoid climate change. By the years 2008 to 2012, developed countries are required to bring their total GHG emissions to 5% less than they were in 1990.<sup>12</sup> The USA in particular was expected to reduce emissions to 7% below 1990 lev-

els by the years 2008 to 2012.<sup>13</sup> This decrease in emissions is to be achieved by reducing GHG emissions and by creating ‘sinks’, that is, by increasing absorption of GHGs by forestation or other measures.<sup>14</sup>

Meanwhile, countries described as in ‘the process of transition to a market economy’ are treated with much more solicitude. These developing countries, which included China, India, South Korea, Mexico and some 130 other countries, have the option of using a base year period other than 1990 from which to measure their reductions (if any),<sup>15</sup> and will be given a ‘certain degree of flexibility’ by the Conference of Parties to the Protocol.<sup>16</sup> The result, as everyone admits, is that ‘developing’ countries will face no limits at all under Kyoto.

The Protocol allows limited trading in emissions. A given country can buy the right to emit a certain amount of carbon dioxide (CO<sub>2</sub>) from another country that values the money more than the right to emit.<sup>17</sup> But such trading can occur only under certain conditions: the trading must involve a ‘reduction in emissions by sources, or an enhancement of removals by sinks, that is *additional* to any that would otherwise occur’;<sup>18</sup> the country buying emissions rights must be in compliance with its obligations under Articles 5 and 7 for measuring emissions;<sup>19</sup> and any trading must be ‘supplemental to domestic actions’ for the purpose of reducing emissions.<sup>20</sup> The requirement of supplementarity would have the effect of reducing the gains of trade on all sides.<sup>21</sup>

The Protocol also allows countries to band together in voluntary associations in order to have their emissions considered collectively<sup>22</sup> – a ‘bubble’ scenario that is widely understood as applying primarily, if not solely, to the European Union.<sup>23</sup> If the EU’s emissions are considered as a whole, individual EU countries have a great deal more flexibility in meeting any individual emissions targets, without necessarily having to explicitly ‘trade’ emissions rights. If Greece has higher emissions one year for whatever reason, while another EU country has lower emissions, no trading need occur unless the overall sum of EU emissions surpasses the overall limit.

Two other features of Kyoto involve international cooperation on carbon reduction projects. Under ‘Joint Implementation’, two industrialised countries (or ‘Annex I’ countries) can create a joint project to reduce emissions in one country, with the reduction counting toward both their targets.<sup>24</sup> Specifically, any Annex I party can acquire or transfer ‘emission reduction units’, which result from projects that

reduce emissions or enhance removals by sinks of greenhouse gases.<sup>25</sup> A number of restrictive criteria apply to such projects.

The 'Clean Development Mechanism' feature is similar, except that it involves industrialised countries funding 'certified project activities' that would reduce emissions by *developing* countries.<sup>26</sup> Such projects would be allowed only if they produced 'real, measurable, and long-term benefits', as well as emission reductions that are 'additional to any that would' otherwise occur.<sup>27</sup>

What are the potential benefits of Kyoto? Possibly few. Because Kyoto requires only that industrialised countries cut back on emissions, it is highly unlikely that the goal of limiting total worldwide emissions to 1990 levels would possibly be met.<sup>28</sup> Even if the industrialised world manages to cut back to 1990 levels, the developing world's emissions would in all likelihood outweigh any reductions.<sup>29</sup> Predicted rates in CO<sub>2</sub> emissions between the years 1999 and 2020 estimate that the industrialised world will increase emissions at an annual rate of 1.2%, but the developing world will increase emissions at 3.7%.<sup>30</sup>

As one scientist put it, Kyoto 'won't prevent total greenhouse emissions from rising' because the 'cuts will be swamped early in the next century by increases in emissions from developing nations such as China and India ...'<sup>31</sup> Thus, British Environment Minister Michael Meacher has said that to achieve any meaningful climate control, industrialised countries would probably have to cut emissions by about fifteen times what the Kyoto Protocol would require.<sup>32</sup>

As a result, even scientists who support Kyoto often admit that it would make little difference to the earth's climate.<sup>33</sup> And yet another reason that Kyoto might not make that much difference is that many large corporations are already trying to limit energy use on their own.<sup>34</sup> After all, any reduction in energy use that can be made cost-effectively will translate into lower prices and higher sales for their products.<sup>35</sup>

The obvious question is, therefore, why was Kyoto supported so strongly, and why was the USA's rejection so vehemently condemned? Environmental groups still support Kyoto on the grounds that any carbon emissions reductions are worth achieving and overall emissions may decline eventually. But others, including companies and countries who want more market power, appear to have been more interested in the strategic possibilities offered by regulation under the

Kyoto Protocol. The economic distortion caused by Kyoto would have offered many opportunities for rent-seeking. The real reason for Kyoto's support is found in the 'bootleggers and Baptists' theory of regulation.

### **Bootleggers and Baptists**

The central problem with global environmental regulation is that it is a classic public good.<sup>36</sup> To the extent that reducing greenhouse emissions is beneficial to the earth's climate, everyone will benefit, even those who refuse to contribute to greenhouse reductions. Because of these two factors, the relevant actors (corporations and countries) have an incentive to limit their own contribution towards any global environmental goal (i.e., to free-ride), while attempting to maximise the contribution of other actors.

Economic theories about regulation, however, are not necessarily complete. Not all small, well-organised special-interest groups will be able to see their regulatory goals put into action. The theory of bootleggers and Baptists,<sup>37</sup> a subset of the economic theory of regulation, further helps explain environmental regulation like the Kyoto Protocol. While powerful interest groups still matter, this theory suggests that efforts to achieve any given regulation will be most successful if at least two quite different interest groups work in the same direction – 'bootleggers' and 'Baptists'.

The term originates in the southern USA, where in the past and even today Sunday closing laws prevent the legal sale of alcoholic beverages. This is advantageous to bootleggers, who sell alcoholic beverages illegally; they get the market to themselves on Sundays. Baptists and other religious groups support the same laws, but for entirely different reasons. They are opposed to selling alcohol at all, but especially on Sunday. They take the moral high ground, while the bootleggers persuade politicians quietly, behind closed doors.

Such a coalition makes it easier for politicians to favour both groups. The Baptists lower the costs of favour-seeking for the bootleggers, because politicians can pose as being motivated purely by the public interest even while promoting businesses' interests.

The post-Kyoto period promises to be rich with bootlegger-Baptist coalitions. The Baptists are the environmental groups pushing for ratification and enforcement of the treaty, and working to prevent

backsliding.<sup>38</sup> They are passionate and persuasive to the public as they argue that cutting back on carbon emissions is a moral necessity. Robert Nelson has noted that the environmentalist movement shares many characteristics with Calvinist Puritanism, namely, a view of mankind as ‘deeply sinful’, a view of the world as corrupted by greed and sin, and a belief that the remedy is to renounce man’s sinful ways for a more ‘pure’ lifestyle.<sup>39</sup> Philip Stott has explained: ‘In Europe, “global warming” has become a necessary myth, a new fundamentalist religion, with the Kyoto Protocol as its articles of faith.’<sup>40</sup>

To determine which groups are the bootleggers, we should search for special-interest groups who are positioned to gain from regulatory enforcement and stringency or who must fend off losses that spring from proposed rules. Some countries, such as the UK, are positioned to exploit carbon reductions they have made in the past by raising the cost to economies that still rely heavily on coal. European nations can effectively rely on the ‘bubble’ proposal to keep their own compliance costs lower relative to other countries not favoured with such a system. Developing countries, with their own emissions unlimited, see opportunities for payments from industrialised countries for reducing carbon emissions or for planting trees. Moreover, within countries, some industries are favoured by the rules and, within industries, some firms will be favoured. Environmental activists provide the cover story on which media attention is focused, while companies, industries and countries work quietly in the background to gain benefits.

### *The battle over tradable permits: the implications of bootleggers and Baptists*

In the dismal science of economics, perhaps nothing is so universally accepted as the superiority of price incentives and property rights measures, as opposed to regulation, to achieve a goal such as cutting emissions.

Regardless of the difficulties that might arise in implementing a global tax or global permit trading system, both are theoretically superior to command-and-control standards. But an important implication of the bootleggers-and-Baptists theory is that global environmental regulation will overwhelmingly prefer flat standards, rather than taxes or tradable permits.

Despite (or because of) the fact that direct taxes or tradable permits are more efficient, industries usually prefer standards. As Stephen

Breyer notes, standards have two primary anti-competitive effects – raising barriers to entry and imposing disadvantages on smaller firms (who are less able to attain economies of scale).<sup>41</sup> Because the firms to be taxed or regulated are a more concentrated special interest than the public (who would benefit from the tax proceeds), the firms naturally are able to influence political decisions.

Environmental activists tend to prefer standards over taxes or tradable permits as well. This is because of the moralistic attitude they adopt, in keeping with the Baptist role. Baptists, after all, would not be content with a mere tax on Sunday sales of liquor. *Any* liquor sales on Sunday are deemed immoral and should be blocked completely. Similarly, a prohibition on emissions over a certain level appeals to the environmentalist moralist more than a tax, which would allow any given corporation to emit as much as it pleased if it pays the tax, and indeed, would allow a corporation to increase emissions if it finds a cost-saving technology.<sup>42</sup>

Similarly, in the international context, poorer nations tend to see tradable permits as inherently unfair.<sup>43</sup> If an international permit trading scheme is enacted, it will probably also face the allegation that rich countries are using it to exploit poor countries.<sup>44</sup>

Thus, the bootleggers and Baptists theory explains why regulatory standards are often the result of political bargaining, as opposed to the more efficient solution of penalty taxes. Both firms and environmental activists effectively collude in lobbying for the most inefficient form of regulation.

Even though unfettered permit trading would reduce the overall cost of controlling carbon emissions (assuming that a viable international market could be constructed), the prospect of having the USA reduce its costs was apparently more than some European politicians could bear. In earlier rounds of negotiation, British Deputy Prime Minister John Prescott expressed concern that Washington would ‘buy tradable greenhouse emission permits from Russia’. As he put it, ‘Europe has always been clear that while we accept the trading possibilities in this matter, they should not be used as a reason for avoiding taking action in your own country.’<sup>45</sup>

One economist has suggested that Europe’s high energy taxes have stifled economic growth, and that Europe wants to ‘force countries like the United States who have relatively low energy taxes to give up their competitive advantage in this area’.<sup>46</sup>

Ironically, the EU's opposition to unlimited permit trading would result in harm to smaller and poorer nations that could profit from selling permits to larger, wealthier countries. According to one analysis, five developing countries (Thailand, Pakistan, the Philippines, Korea and Vietnam) stood to gain US\$6.1 billion a year from selling certified emissions reductions to rich countries, versus US\$1.4 billion if tradable emissions reductions were limited to 25% of the rich countries' reductions.<sup>47</sup> Yet the fact that the producers' surplus would also be reduced by unfettered trading<sup>48</sup> was apparently enough to make the EU want to impose supplementarity requirements.

Long before Kyoto, academic economists churned out vast numbers of studies on the effects of controlling GHGs. During the negotiation of Kyoto, these broad studies were supplemented by studies of its impact on specific sectors. There are three key observations that can be made about numerous studies done so far. Most studies predict that the cost to the USA of ratifying the Kyoto Protocol would have been quite significant. They also indicated that the Kyoto Protocol would have had widely disparate impacts on various industries, but that it would have quite different effects on different countries. We will examine these findings in turn.

More pertinent to the thesis of this chapter are the findings about how Kyoto would impact different energy industries. Jorgensen's and Wilcoxon's simulations indicated that meeting Kyoto's goals would require that coal be taxed at US\$11.01 per ton, oil at US\$2.31 per barrel, and natural gas at US\$0.28 per thousand cubic feet.<sup>49</sup> As a result, they estimated that coal prices would increase by 40% and coal production would drop by 26%.<sup>50</sup> Manne and Richels found that under the most stringent Kyoto assumptions, the price of coal would increase fourfold, and the demand for oil would increase, not decrease.<sup>51</sup>

DRI-McGraw-Hill's study (reviewed by the Economic Policy Institute) assumes a government-issued marketable permit programme.<sup>52</sup> The study considers two scenarios: stabilising GHG emissions at 1990 levels and reducing emissions by 10% below 1990 levels by the year 2010.<sup>53</sup> The study predicts that various energy forms will see severe price increases: a sevenfold price increase for coal by 2010,<sup>54</sup> a doubling of electricity prices and retail gasoline price increases of 40–50%.<sup>55</sup>

Because of these price increases, coal, which now provides 24% of

US energy, would provide only 18%.<sup>56</sup> Petroleum's share would increase, and natural gas would maintain its current market share.<sup>57</sup> Coal output was predicted to decline by 45%, rubber and plastics by 50% and electricity production by 18%.<sup>58</sup>

WEFA's study found that to achieve the necessary reductions, carbon permit prices would have to rise by an estimated US\$265 per metric ton, causing an increase of 65 cents in the cost of a gallon of petrol and a doubling of natural gas and electricity prices.<sup>59</sup> Industries producing chemicals, paper, textiles and apparel, and computer and electronic parts production would be severely affected.<sup>60</sup>

Kyoto would also affect countries in quite different ways. First, countries will have different marginal costs of abatement, which means that their costs to comply with Kyoto will vary tremendously. Unfortunately, few studies examine marginal costs of abatement on a country-by-country basis. An educated guess would be that countries that have already substantially reduced greenhouse emissions, which have already passed environmental regulation internally, and which have already invested in energy efficient products, would probably have higher marginal costs than those countries where energy emissions have heretofore been relatively unregulated.

Second, industries are not evenly distributed among countries. Given the differential impact that Kyoto will have on various industries, countries would be affected to the extent they possess more or fewer of those industries. Any decrease in oil use, for example, would be opposed by countries that depend heavily on oil sales for their national income.

Third, the exemption for developing countries could have a distributional effect on where industries locate. Manne and Richels note that under Kyoto, 'US output of energy-intensive products such as steel, paper, and chemicals could be 15% less than under the reference case by 2020 ... In contrast, countries such as China, India, and Mexico would increase their output of energy-intensive products.'<sup>61</sup> WEFA found that, due to the exemption for developing countries, US exports would become 'relatively more expensive on the world market', while the prices of many imported products would fall.<sup>62</sup>

### *Corporations as bootleggers*

The arena of environmental regulation is rich with opportunities for favour-seeking, bootlegging and exploitation by self-interested

corporations on all sides of the global warming debate. Industries or corporations that expect to benefit from the regulatory standards imposed by Kyoto lobbied in support of the agreement, while those that would be harmed opposed it.

### *The squabble over subsidies*

One of the most potent arenas for rent-seeking involves government subsidies to industry for research and development on global warming projects. Government subsidies are usually inefficient because subsidies should go only to projects that 'promise great potential gains for society but are unlikely to yield profits to the innovator'.<sup>63</sup> Yet government is often unwilling to restrict its funding to such projects, if it is able to identify them in the first place. As a result, government R&D subsidies probably have the effect of crowding out private efforts that would already occur.<sup>64</sup>

Ironically, government subsidies have created opportunities for rent-seeking on both sides of the global warming controversy. Though it may not be well known, the US government already subsidises the very oil companies that are seen as greenhouse villains by environmental activists.<sup>65</sup> One study claimed to have found that between 1992 and 1998, two US agencies – the Overseas Private Investment Corporation and the Export-Import Bank of the United States – underwrote some US\$23 billion in financing for oil, gas and coal projects throughout the world.<sup>66</sup> The study claimed that these projects will, over their lifetimes, release 29.3 billion tons of CO<sub>2</sub>, more than all global emissions in 1996.<sup>67</sup>

But the global warming scenario has also created opportunities for corporate welfare. President Clinton's budget for the fiscal year 2001, for example, asked for US\$1.4 billion for research on 'clean technologies for the buildings, transportation and electricity sectors', US\$200 million to 'make the latest energy technologies available to the developing world', and US\$1.7 billion for research on the role of GHGs in global warming.<sup>68</sup>

One thing is sure, however – tax breaks, subsidies and regulations requiring energy-efficient products are sure to be supported by the manufacturers of those products. For example, Exxon-Mobil, a traditional oil corporation, has published opinion advertorials urging the government to fund research on such technologies as fuel cells, which happens to be one of Exxon-Mobil's corporate projects.<sup>69</sup> This is why

prominent economists argue that a simple carbon tax would be preferable to subsidies, because subsidies 'give too much power to government officials who pick the favoured activities'.<sup>70</sup>

### *Enemies of coal and oil*

Supporters of Kyoto include not only those companies which are directly subsidised, but those which offer products that compete with coal or oil, and that would therefore benefit from restrictions on carbon emissions. As reported in *US News & World Report*, 'Many businesses active on global warming envision not subsidies but a market-based trading system that would allow farmers and others who cut carbon emissions to get credits they could sell to carbon-emitting businesses.'<sup>71</sup>

The nuclear power industry, for example, strongly supports Kyoto, just as it supports any policy that will make nuclear alternatives more expensive.<sup>72</sup> Nuclear plants emit no CO<sub>2</sub>, and London's Uranium Institute has said that nuclear plants currently cut carbon emissions by 2.3 billion tons per year worldwide, despite supplying a mere 6% of the world's power.<sup>73</sup>

But nuclear energy is in trouble throughout much of Europe, as many countries (including Belgium, Germany, the Netherlands and Sweden) have decided to phase out nuclear power.<sup>74</sup> Because Kyoto would pressure those countries to limit carbon emissions, it would compel them to continue using nuclear power.

Indeed, without nuclear energy, many countries would probably be unable to meet their Kyoto commitments. EU Energy Commissioner Loyola de Placio has said that without nuclear energy, 'we won't be able to stick by the terms of the Kyoto agreement.'<sup>75</sup> Similarly, Germany's Economy Minister Werner Mueller has said that because of his country's phase-out of nuclear power, 'a CO<sub>2</sub> reduction of 40% by 2020 is hardly possible.'<sup>76</sup>

All of these considerations mean good times ahead for the nuclear industry, which 'sees global warming as its trump card'.<sup>77</sup> As the International Energy Agency said in a recent report, 'A strong commitment to reduce emissions of CO<sub>2</sub> could have a dramatic positive effect on the prospects for nuclear power over the coming decades.'<sup>78</sup>

The nuclear industry's claims to environmental friendliness are challenged, of course, by environmental activists, who have lobbied to keep nuclear energy from being an option for reaching the Kyoto reductions.<sup>79</sup>

Not everyone is teaming up with the Baptists. Many major industries, or at least major firms, still oppose Kyoto. Coal producers and related unions have been among the most vocal in their opposition. Coal interests in West Virginia, for example, successfully obtained state legislation which prohibits the state government from ‘proposing or enacting rules regulating so-called GHG emissions from industrial sites’. Yet even this anti-Kyoto legislation was announced with a flourish of Baptist-like rhetoric. When signing the bill, Governor Cecil Underwood said that while actions like the Kyoto Protocol must be opposed, we ‘should continue to encourage the development and implementation of technologies that allow the clean burning of coal’.<sup>80</sup>

### *Countries as bootleggers and Baptists*

Like any global environmental treaty, Kyoto’s negotiations offered many opportunities for countries to compete with each other. In the words of *The Economist*, the treaty ‘always had more to do with the jockeying for individual trading advantage than preserving the global environment for future generations’.<sup>81</sup>

The first thing that appears to be a bootlegging measure is the choice of 1990 as the baseline year for measuring any emissions reductions.<sup>82</sup>

As reported in the *Oil and Gas Journal*:

Against 1990 baseline levels, European Union members seemed to have shouldered the greater load, agreeing to an aggregate 8% reduction in greenhouse-gas emissions against 7% for the US. But several European countries displaced coal significantly with natural gas between 1990 and the 1997 meeting in Kyoto. With this convenient head-start, the EU as a whole needed to lower emissions from levels projected for 2012 by only 15–20% to satisfy Kyoto, compared with 30–35% for the US.<sup>83</sup>

On the other hand, countries such as Canada, the Netherlands, Australia and the USA had increased carbon emissions between 1990 and 1997 – which meant that their burden under Kyoto would be comparatively much larger.<sup>84</sup> Thus, even in something as seemingly innocuous and objective as the choice of a baseline year, various countries attempted to set Kyoto’s terms so as to maximise their competitive advantage.<sup>85</sup>

### *Redistribution effects*

In the international context, the 'Baptists' are the tropical countries that have urged the ratification of Kyoto on the grounds that their lands would be flooded and their agriculture destroyed if global warming occurs. As reported in the *New York Times*, a study by the Intergovernmental Panel on Climate Change argued that global warming would further widen 'the gap between rich, industrialised countries and poor developing nations'.<sup>86</sup>

While poorer nations proposed the moralistic, Baptist arguments, probably a more important motivation was their desire to create incentives for job and wealth redistribution from wealthier countries to poorer countries. Due to the exclusion of developing countries from Kyoto's restrictions, one predicted effect is that industrial production and jobs might shift from the industrialised world (where energy prices would be higher) to the developing world.<sup>87</sup>

This is because the agreement would raise the relative cost of production in the developed world, particularly for manufacturing and energy-intensive industries, encouraging a reallocation of investment to less developed countries.<sup>88</sup> Thus, though Kyoto was promoted as an environmental treaty, it might well have functioned as a redistribution policy from rich countries to poor countries, even as those very same poor countries played to Baptist moral sensibilities by presenting themselves as most vulnerable to the impacts of global warming.

Some environmental leaders openly acknowledged this aspect of Kyoto; Margot Wallstrom said in reaction to Bush's rejection of Kyoto:

This is not a simple environmental issue where you can say it is an issue where the scientists are not unanimous. This is about international relations; this is about trying to create a level playing field for big businesses throughout the world. You have to understand what is at stake and that is why it is serious.<sup>89</sup>

In this praiseworthy moment of honesty, the European environment commissioner laid bare the real motivations behind the EU's outrage over the USA's actions: 'international relations' and creating a 'level playing field for big businesses throughout the world' – in other words, bootlegging on a global scale. The merits of such a policy are

at best debatable, and should be discussed openly rather than hidden behind moralistic rhetoric.

*The battle over sinks and tradable permits*

In the November 2000 negotiations at COP-6, the United States and the EU battled over how to count reforestation and other methods of creating carbon sinks.<sup>90</sup> Specifically, they disagreed over how much trading in emissions rights and how much credit for forestation would be allowed.<sup>91</sup> The USA, for example, wanted to get ‘sink’ credit for a mere 20% of the estimated 288 million tons of carbon absorbed each year by US forests.<sup>92</sup> This is not surprising – one recent article in *Science* estimated that all the carbon emitted by the USA and Canada was balanced by absorption in forests and vegetation.<sup>93</sup>

But the EU tried hard to limit any credit for carbon sinks,<sup>94</sup> at least in part out of jealousy because their own countries have less land available for reforestation efforts.<sup>95</sup>

The EU was also inspired by a desire to punish the USA for not having enough market-stifling command-and-control regulation. *The Economist* reported, ‘Some European ministers made it clear that they wanted Americans to feel some economic pain more than they wanted a workable agreement.’<sup>96</sup> The Clinton administration’s chief Kyoto negotiator agreed, saying

The EU is concerned that implementing the Protocol, particularly in the United States, will be too easy. Some in Europe think that we have a moral obligation to change our lifestyle as quickly and radically as possible. In this sense, many in the EU believe that producing significant short-term pain and suffering is actually desirable, rather than something to be avoided. The EU is also concerned that enterprises in the United States and other countries relying on efficient market-oriented approaches will enjoy a competitive advantage over European businesses that have been subjected to carbon taxes and extensive regulation.<sup>97</sup>

Another battle was about the extent of permit trading to be allowed. Several countries, including the former Soviet-bloc countries and Russia, stand to profit hugely from a permit trading system if Kyoto is implemented, so it is no surprise that they strongly support Kyoto. The Soviet-bloc countries experienced an economic and industrial collapse

in the 1990s, which reduced their carbon emissions by some 40% from their 1990 levels. They need not take any action to reduce their existing emissions, and because the Kyoto Protocol would increase the price of carbon, they could profit handsomely by selling carbon permits that they would not need to use domestically.<sup>98</sup>

Meanwhile, Russia's economy is in shambles – production has fallen 40% below 1990 levels, which means that they are not really selling emissions 'reductions' at all.<sup>99</sup> Selling these unused emissions credits could be a huge boon: Kazakhstan could earn some US\$800 million per year, and Russia some US\$3 billion per year, if Kyoto is ratified, assuming current carbon prices.<sup>100</sup> If, as most analysts expect, the price for carbon under Kyoto rose to around US\$20 per ton, Kazakhstan could earn US\$3 billion and Russia US\$12 billion per year.<sup>101</sup>

Other countries were not so keen to enter the world of emissions trading. The EU in particular was suspicious of allowing too much permit trading, instead pushing for supplementarity requirements that could only reduce the available gains of trade for all parties.

But even as the EU tried to limit gains from trade for the USA, it created a way for its member states to minimise their own emission reduction costs. The EU would employ a 'bubble' concept to achieve overall emission reductions for the member states.<sup>102</sup> Under this plan, some European countries will be able to emit more and others less because only the collective total matters.

The bubble allows the EU to minimise the overall cost of emission reductions by allocating emission cutbacks differently to different countries. It is generally cheaper to reduce emissions when concentrations are higher, so it is logical and technically efficient to require countries that produce more CO<sub>2</sub> per unit of output to make larger cutbacks. The bubble system would probably save vast sums of money for the EU.

The system obviously provides a framework for trading. Those which face high costs in cutting emissions can buy permits or credits from other European countries that face lower control costs. By encouraging bubble trading within the EU while managing Europe's external trades so that its competitors' costs go up, Europe's new central government takes on the traditional protectionist position of many nation-states, controlling exports and imports. The difference is that the items traded are permits (emission reductions), not commodities.

Countries within Europe are strategically positioning themselves

against each other. The bubble policy gives more leeway to southern European countries, such as Spain, Portugal and Greece, lower-income countries that are rapidly industrialising and emitting high quantities of carbon.<sup>103</sup> Countries such as Germany, the UK, the Netherlands and France already had relatively low carbon emissions, having transformed their coal-based energy economies to cleaner fuels. Through trading, these countries can purchase the emissions credits of the high carbon emitters at relatively low cost.

Not surprisingly, the USA's negotiators opposed the European bubble when it was proposed during the COP-6 negotiations.<sup>104</sup> But in its own way, the USA was playing the 'increase the rivals' cost game'. American negotiators complained that the EU 'bubble doesn't level the playing field',<sup>105</sup> and argued that each European state should have specific reduction goals that must be met internally, rather than being allowed to trade within Europe under the bubble.<sup>106</sup> From the USA's perspective, this arrangement would have been doubly beneficial: the USA could trade with less-developed European countries, and at the same time impose higher costs on its competitors.

Our analysis of the bubble scheme suggests newer EU members received more allowances, all else being equal,<sup>107</sup> and that the allocations are designed to keep the bootlegger community intact. The bubble minimises overall costs and other concessions (sometimes called 'side payments') are made to ensure that reluctant community members do not trade outside the community. Populous nations with tighter emissions allowances will probably buy permits from the countries with higher carbon streams and larger allowances for emission growth. Wealth will flow generally from northern to southern European countries for trades within the European bubble.

### *Countries and industries*

One obvious effect of Kyoto is to provide a disincentive for oil use. It is thus unsurprising that some of Kyoto's most vocal opponents were those countries that depend heavily on oil sales.

Saudi Arabia's energy minister, for example, said, 'We cannot accept that the industrialised countries transfer the cost of reducing their GHG emissions to our countries by embracing policies and measures that would lead to reducing their imports of our fossil fuel exports on which revenues we depend to a great extent.'<sup>108</sup> He also said that if Kyoto were ratified, the OPEC countries would lose US\$60 billion of

income annually by 2010, more than one-third of their current revenue.<sup>109</sup>

*Enforcement problems: further possibilities for bootlegging*

A serious problem is that Kyoto would be very difficult to enforce. Even if Kyoto were enacted, bootlegging would have continued in the attempts to enforce the treaty. While some reports indicate that the EU favours a system of fines for excess carbon emissions,<sup>110</sup> it would be extraordinarily difficult to enforce such fines as long as individual countries are (as they must be) responsible for measuring and estimating their own emissions.<sup>111</sup> Moreover, GHG emissions are an estimate rather than a precise measurement.<sup>112</sup>

Thus, Kyoto's limits would 'require very complicated calculations, and government agencies, industries, and environmental groups will expend large amounts of time, talent, and political capital trying to influence how experts calculate those estimates'.<sup>113</sup> Perhaps an international environmental police force would be required, although the political likelihood of that happening is virtually non-existent.

Even if Kyoto's terms could be enforced with ease, another problem would remain: 'only about half of greenhouse gas emissions have come from burning fossil fuels.'<sup>114</sup> The other half of human emissions are impossible to monitor, because they result from pipeline leakage, the burning of tropical forests, wood-burning for fuel, and other sources that are impossible to monitor.<sup>115</sup> And as they are more likely to occur in developing countries, omitting them from Kyoto coverage would 'probably favour' those countries.<sup>116</sup> Thus, difficulties in enforcement create further opportunities for bootlegging on an international scale.

## **Conclusion**

A world industrial policy is in the making. In the past, socialist and communist governments (and even, to a lesser extent, the USA) engaged in industrial planning within their countries. The publicly stated goal was to improve economic well-being by favouring certain industries and firms to be the engines of the economy and allow the others to phase out gradually. Such centralised planning was never effective in the long run, but it created opportunities for favour-seeking that gave some industries and firms advantages over the others.

Day after day, newspapers and television continue to report the alarmist pleas of the ‘Baptists’, urging world leaders to ‘do something’ about global warming, while the machinations of the ‘bootleggers’ largely go unnoticed. Yet there is ample evidence that the Kyoto Protocol (or any similar agreement) would be used as a crutch to secure political favours for conventional special-interest groups. As we have seen, some nations and at least one community of nations dictated Kyoto’s terms in strategic ways to enhance their positions relative to other nations.

In the final analysis, we should hope that the fear of perilous global warming will subside, along with efforts to control the world’s energy economies. Yet even if this happens, the regulatory concrete delivered by Kyoto would endure. History shows that once a major concern becomes transformed into institutional rules and regulations, interest groups that invested in those rules seek to maintain them.

The Kyoto Protocol might have established a system of industrial policy as well, although its purpose would not be to achieve economic growth. The officials in charge of the system would have possessed the power to specify which nations and industries would bear the greater pain of cutting back on carbon emissions. In this international system, although the Baptists presented the moral front for adopting the treaty, the bootleggers would have converted environmental policy to an industrial policy that favours them.

If we discover that global warming isn’t such a problem, the treaty will be a waste of time and a misuse of our resources. If global warming turns out to be genuine, those economies that maintain market flexibility will be best equipped to adapt to it.

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## Notes

- 1 COP6 proceedings can be found at the Conference website:  
<http://cop6.unfccc.int/> (last visited 12 July 2001).
- 2 The rejection originated in a letter from President Bush to several senators.  
*See White House* (2001).
- 3 The US Senate passed a resolution on July 25 1997, by a margin of 95-0,  
requesting the executive branch not to sign the Kyoto Protocol unless a  
commitment was made by developing countries to reduce emissions and if  
the Protocol was shown not to cause serious harm to the US economy. US  
Senate (1997).
- 4 *The Economist* (2001a).
- 5 Steyn (2001).
- 6 Browne (2001).
- 7 *Ibid.*
- 8 Easterbrook (2001).
- 9 *Ibid.* Easterbrook adds that ‘American commentators have happily parroted  
Europe’s line.’
- 10 *See* EIA (1998). For a critique of this study, see Geller (1998).
- 11 This theory was first described in Yandle (1983); *see also* Yandle (1999).
- 12 Kyoto Protocol Art. 3, § 1.
- 13 *See* US DOE (no date).
- 14 Kyoto Protocol. Art 3, § 2.
- 15 *Ibid.* Art. 3, § 5.
- 16 *Ibid.* The Conference of the Parties is the Protocol’s term for the ‘supreme  
body of the Convention’. *Ibid.* Art. 13 § 1.
- 17 *Ibid.* Art. 3, §§ 10, 11.
- 18 *Ibid.* Art. 6, § 1(b).
- 19 *Ibid.* § 1(c).
- 20 *Ibid.* § 1(d).
- 21 *See* Black-Arbelález (2001).
- 22 Kyoto Protocol. Art. 4, § 1.
- 23 *See* EU (2000).
- 24 The International Climate Change Project Fund, sponsored by the United  
States Agency for International Development, is currently seeking to fund  
joint implementation projects in USAID-assisted countries in Asia, Africa  
and Latin America. For more information, see Joint Implementation Online,  
<http://www.ji.org>
- 25 Kyoto Protocol, Art. 6, § 1.
- 26 *Ibid.* Art. 12.
- 27 *Ibid.* Art. 12, § 5(b), (c). For further discussion of the Clean Development  
Mechanism, see Hourcade and Toman (1999).
- 28 The exclusion of China alone may undermine any possibility of keeping  
worldwide emissions from growing. *See* Deborah E. Cooper, Note, ‘The  
Kyoto Protocol and China: Global Warming’s Sleeping Giant’, 11  
*Georgetown International Environmental Law Review* 401 (1999).

- 29 See Manne and Richels (1999), pp. 1, 20; Reid & Goldemberg (1997),  
p. 233.
- 30 NEIC (2001).
- 31 Malakoff (1997).
- 32 BBC News (2000).
- 33 See, e.g., Bolin (1998), pp. 330–31. Another scientist (Wigley 1998)  
estimated that if all nations met their Kyoto obligations, the likely reduction  
in global warming by year 2050 would be even less: 0.07°C.
- 34 See, e.g., Bradsher and Revkin (2001).
- 35 Gordon Reid Smith of BP has said, ‘Every reduction in energy use directly  
translates to reductions in operating costs in products available for sale  
along with decreases in combustion CO<sub>2</sub> emitted.’ Shook (1999).
- 36 See generally Samuelson (1954).
- 37 See Yandle (1983).
- 38 Indeed, Kyoto enjoys the support of a variety of religious groups, including  
some actual Baptists. For example, the South Carolina Interfaith Climate  
Change Campaign includes Catholics, Methodists, Lutherans, Presbyterians,  
and the Cooperative Baptist Fellowship; Munday (2000). Joan Brown  
Campbell, head of the National Council of Churches, has said that she  
wants to make support for Kyoto a ‘litmus test for the faith community’;  
Cushman (1998).
- 39 Nelson (1993), pp. 233, 234.
- 40 Stott (2001). Stott is emeritus professor of biogeography at the University of  
London.
- 41 Breyer (1982), pp. 269–70.
- 42 Along the same lines, Leidy and Hoekman (1996) suggest that  
environmental activists prefer standards over taxes because the ‘flexibility  
and autonomy remaining in the hands of polluting firms under a penalty tax  
is undesirable’; pp. 43, 54.
- 43 As Frances Cairncross (1995) notes, ‘When the richer countries have offered  
to meet their goals for carbon dioxide cuts partly by paying for energy-  
saving measures in the developing world, the poorer countries have  
sometimes accused them of trying to buy their way out of their  
environmental responsibilities.’ p. 73.
- 44 The exploitation, however, might not be all one-way – if the number of  
carbon permit sellers is few enough (that is, if only a small number of  
countries have emissions low enough that they can sell permits to other  
countries), there would arise a ‘considerable potential for extracting  
monopoly rents’; Manne and Richards (1998). If, as seems likely, the former  
Soviet states (especially Russia and the Ukraine) dominated the market for  
permits, the ‘expected efficiency gains from establishing a permits market  
among Annex I countries could be reduced by about a third’; (Burniaux  
1998).
- 45 Raven (1998).
- 46 Cordato (1999).
- 47 See Black-Arbeláez (2001), p. 35, Table 12.
- 48 *Ibid.*

- 49 Jorgenson and Wilcoxon (1993).  
50 *Ibid.*  
51 Manne and Richels, *supra* note 141.  
52 DRI-McGraw-Hill (1997).  
53 *Ibid.*  
54 *Ibid.*  
55 *Ibid.*  
56 *Ibid.*  
57 *Ibid.*  
58 *Ibid.*  
59 WEFA, Inc. (1998), p. 2.  
60 *Ibid.* at 4–5.  
61 Manne and Richels (1998).  
62 WEFA, Inc. (1998), p. 4.  
63 Wallsten (2000), p. 12.  
64 *Ibid.*  
65 Also the World Bank reportedly invested nearly \$16 billion since 1992 in oil, gas, coal and other power projects around the world, particularly in Third World countries. See [http://www.seen.org/pages/press\\_releases/pr\\_leak.shtml](http://www.seen.org/pages/press_releases/pr_leak.shtml)  
66 See Wysham *et al.* (1999), p. 5.  
67 *Ibid.*  
68 Energy Report (2000).  
69 See Exxon-Mobil (2000), Exxon-Mobil (2001).  
70 Hammitt (2000). Hammitt is an associate professor of economics at the Harvard Center for Risk Analysis.  
71 Lavelle (2001).  
72 Frances Cairncross observes that ‘Britain’s nuclear electricity generators have been keen on carbon tax: not surprisingly, as they are the main commercial source of carbon-free energy.’ Cairncross (1995), p. 192.  
73 Kakuchi (1997).  
74 Reuters (2001b).  
75 Reuters (1999).  
76 Reuters (2001a).  
77 John (2001).  
78 Reuters (2001b).  
79 *See, e.g.*, Reuters (2000).  
80 Utility Environment Report (1998).  
81 *The Economist* (1997).  
82 For a chart showing the difference between Kyoto commitments and actual 1995 emission levels for various countries, see Grubb, Vrolijk & Brack (1999), p. 162.  
83 *Oil and Gas Journal* (2000).  
84 ENS (2000).  
85 *See also The Economist* (1997).  
86 Revkin (2001).

- 87 See, e.g., McKibbin *et al.* (1999), p. 287. Environmental activists, of course, disagree. See, e.g., Repetto & Maurer (1997).
- 88 Cordato (1999).
- 89 Castle (2001).
- 90 See Laird (2000).
- 91 See, e.g., Drozdziak (2000).
- 92 Horner (2000).
- 93 Fan *et al.* (1998).
- 94 See, e.g., Grubb *et al.* (1999), pp. 79–80.
- 95 See Topping Cone (2000). ('The EU, with significant limits on land available for reforestation by its member countries, is lobbying for these credits to have a lower value in an emissions trading system ...')
- 96 *The Economist* (2001b).
- 97 Loy (2000).
- 98 See generally FT Energy Newsletters (2001).
- 99 See Victor (2001).
- 100 LeVine (2000).
- 101 *Ibid.*
- 102 See Kyoto Protocol, Art. 4, § 1; see also *supra* notes 39–40 and accompanying text.
- 103 See *ibid.* at 85.
- 104 Witter (1997).
- 105 *Ibid.* (statement of Melinda Kimble, Acting US Assistant Secretary of State for the Environment).
- 106 *Ibid.*; see also Utility Environment Report (1997).
- 107 Yandle (1999), p. 35.
- 108 Planet Ark (2000).
- 109 *Ibid.*
- 110 See, e.g., Brown (2000).
- 111 For a good description of this difficulty, see Mitchell & Chayes (1995), pp. 115, 120–27.
- 112 Laird (2000).
- 114 Cooper (1998), p. 66.
- 115 *Ibid.*
- 116 *Ibid.*

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