Example 8.4 The Copenhagen Accord

With the Kyoto Protocol set to expire in 2012, over 120 government leaders from nations throughout the world met in Copenhagen from December 7-18, 2009 to forge a new post-Kyoto agreement on limiting greenhouse gas (GHG) emissions to slow down or stop global warming. The meeting, held under the auspices of the United Nations Framework Convention on Climate Change, was called the Copenhagen Climate Change Summit. There was some urgency to the Summit, given the growing consensus within the scientific community that, if current trends in GHG emissions continue, global warming will cause seriously disruptive changes in climate and a significant loss of life by 2100. There is even some non-negligible probability of the average temperature rising 6.7° Celsius (12° Fahrenheit) by 2100, which would cause catastrophic loss of life.

Economists believed that the leaders had to achieve four objectives in Copenhagen if they were serious about reversing the trend in GHG emissions:

- 1. Set a firm target on the maximum amount that the average temperature would be allowed to increase, along with the reductions in GHG needed to keep the increase within that maximum.
- 2. Establish a global market or pricing strategy for reducing GHG emissions. The two most likely candidates are a cap-and-trade system of marketable permits or a tax on carbon use to control the emissions of carbon dioxide (CO₂), the GHG most responsible for global warming. As noted in Example 8.1 on the Kyoto Protocol, economists tend to favor the carbon tax for a number of practical reasons, but a cap-and-trade system would be a reasonable alternative.
- 3. Establish verification and enforcement mechanisms under either pricing strategy to ensure that the targeted reductions in GHG emissions are being met within each nation.

4. Establish a financial arrangement under which the developed nations subsidize the developing nations for a substantial part of the costs the latter would bear in reducing their GHG emissions, at least for the next decade or so.

Economists and other observers were highly skeptical that the leaders would be able to achieve these objectives given how feckless the Kyoto Protocol turned out to be. Only the European Union made a serious attempt to reduce GHG emissions under Kyoto through its Emissions Trading System, described in Example 7.2. The other major nations essentially ignored Kyoto, and thereby completely undermined Kyoto's principal objective of sharply reducing global GHG emissions from their 1990 levels. Global GHG emissions have risen steadily since 1990.

The skeptics turned out to be right. The Chinese immediately balked at any attempt to verify and enforce GHG emissions reductions during the Copenhagen Summit. Consequently, the assembled leaders never came close to establishing a global pricing system to cut GHD emissions. The final document emerging from the Summit, called the Copenhagen Accord, was drafted hurriedly by Brazil, China, India, South Africa, and the United States on December 18, more or less to have something to show for the eleven days of negotiations. It contains twelve brief provisions that amount to little more than a set of good intentions.

THE PROVISIONS OF THE ACCORD

Provisions 1, 2, 4, and 5 of the Accord address the need to cut GHG emissions to halt the trend in global warming. The nations essentially agreed that global warming caused by GHG emissions is indeed a serious problem and that the rise in average temperature should be kept below 2° Celsius (3.6° Fahrenheit) throughout the twenty-first century. The Annex 1 countries of the UN FCCC, essentially the developed industrialized countries (see Example 8.1), were to set 'economy-wide emissions targets' for GHG for 2020, submit those targets by January 31, 2010, and begin steps immediately to implement them. The non-Annex 1 nations, essentially the developing countries, were to begin implementing 'mitigating strategies' and submit their plans and targets by January 31, 2010 as well. These targets in all cases were to be more stringent than the original Kyoto targets:

- Provision 6 spoke of the need for reforestation efforts to remove CO₂ from the atmosphere.
- Provisions 3, 8, 9, and 10 addressed the need for the developed nations to subsidize the developing nations in their efforts to reduce GHG emissions. The developed nations pledged \$30 billion to this end by 2012 and \$100 billion by 2020. A Copenhagen Green Climate Fund will be established to collect the

- funds and direct subsidies to specific projects and initiatives within the developing countries.
- Provision 11 calls for the establishment of a Technology Mechanism to help nations develop GHG emissions mitigation and recapture technologies and to promote their transfer among nations.
- Provision 7 commits the nations to pursue various actions to mitigate GHG emissions, including market or pricing strategies, without stating a preference for any particular action or actions.
- The final provision, 12, provides for an assessment of the progress in reducing and recapturing GHG emissions under the Accord by 2015, and a consideration at that time of further reducing the maximum permissible rise in average temperature to 1.5° Celsius (2.7° Fahrenheit).

ASSESSING THE ACCORD

These 12 provisions of the Copenhagen Accord fall ludicrously short of the four steps described above that would be necessary for a serious commitment to reducing GHG emissions. There is a pledge to hold the average temperature increase below 2° Celsius, but no market or pricing strategy to achieve this, and no verification or enforcement mechanism to give credence to any 'commitment' any nation might make to reduce GHG emissions. This includes the specific pledge of the developed nations to subsidize the developing nations in Provision 8. Absolutely nothing in the Copenhagen Accord is legally binding, and the Accord was not agreed to unanimously by the attending nations.

By February 2010, sixty-six nations had submitted specific GHG emissions reduction targets for 2020, as they had pledged to do under the Accord. But their so-called action commitments hardly inspire confidence. Consider, for example, the action commitments by the United States, China, and the European Union, which account for 16%, 17% and 12% of global CO₂ emissions, respectively.

The U.S. set a target of a 17% reduction in GHG emissions below its 2005 levels by 2020, with further reductions of 42% of 2005 levels by 2030 and 83% by 2050. This is simply a pledge by the Obama administration that is roughly in line with legislation already passed by the U.S. House of Representatives. But these targeted reductions will never be approved by the U.S. Senate, so there is no way of knowing what the final U.S. targets will be. Even if the Senate were to pass the 2020 reduction, it still represents less than a 4% reduction from U.S. GHG emissions in 1990, which is the presumed baseline under the Kyoto Protocol and Copenhagen Accord.

China said that it will 'endeavor' to reduce its GHG emissions per unit of GDP by 40% to 45% below 2005 levels by 2020, which could mean just about anything.

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¹ The Copenhagen Accord is available on the website of the United Nations Framework Convention on Climate Change. <unfccc.int/resource/docs/2009/cop15/eng/l07.pdf>

The EU pledged to reduce its GHG emissions by 20% below 1990 levels, and offered to reduce it emissions further to 30% below 1990 levels if the other major nations make a similar commitment. It seems unlikely, though, that the EU will be satisfied with the efforts of the other major nations.²

To make matters even worse, the action commitments themselves may well be insufficient to meet the average temperature goal. Three organizations specializing in climate and environmental issues, Ecofys, Climate Analytics, and the Potsdam Institute for Climate Impact Research, publish a Climate Action Tracker to monitor GHG emission that they claim is based on scientific literature. According to their Climate Action Tracker, only two of the developed nations that have submitted emissions targets, Japan and Norway, have targets that are stringent enough to meet the goal of keeping the average temperature from rising less than 2° Celsius. Overall, the pledged reductions by the 66 nations are estimated to leave GHG emissions on a path that will lead to more than a 3° Celsius (5.4° Fahrenheit) rise in average temperature by 2100. The vast majority of nations are apparently not yet ready to bear any significant costs to bring a halt to global warming.

In summary, the Copenhagen Accord can hardly be taken seriously from an economic perspective. Perhaps cooperation on a global problem such as GHG emissions is so difficult to achieve politically that it has to begin with very small, seemingly ineffectual steps. Maybe China, for one, will substantially reduce its industrial pollutants as a matter of self-interest, given the serious pollution that afflicts many of its major cities. If it does, it might include GHG emissions in its anti-pollution efforts. But these statements and others like them that search for hope in the Copenhagen Accord are probably nothing more than what they appear to be—exercises in wishful thinking. One wonders if government leaders will ever get serious about global warming unless and until some clear danger presents itself, and whether it will be too late by then to reverse the warming trend.

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² These action commitments are summarized on the website of the United Nations Framework Convention for Climate Change. <unfccc.int/home/items/5264.php> (U.S. and the EU);

<unfccc.int/home/items/5265.php> (China). The percentages of total CO₂ emissions by the U.S., China, and the EU are available on the website of the Natural Resources Defense council, a nonprofit organization concerned with climate and environmental issues.

<www.nrdc.org/international/copenhagenaccords/default.asp>

³<www.ecofys.com/com/news/pressreleases2009/pressrelease_02022010_climate_action_tracker.htm>