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# Supreme Court Declares Greenhouse Gas an Air Pollutant

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# CORNHUSKER ECONOMICS

## Supreme Court Declares Greenhouse Gas an Air Pollutant

On April 2, 2007, the U.S. Supreme Court in *Massachusetts v. EPA* ruled 5-4 that carbon dioxide (CO<sub>2</sub>) was an air pollutant under the Federal Clean Air Act (CAA). The court's decision means that the Federal Environmental Protection Agency (EPA) is required to reconsider its decision not to regulate CO<sub>2</sub> as an air pollutant when establishing auto tailpipe emission requirements. The court's decision is an important victory for those seeking a more active U.S. policy on regulating greenhouse gas (GHG) emissions to combat global warming. This newsletter examines the U.S. role in global warming, the *Massachusetts* decision, and the decision's impact on U.S. GHG regulation policies.

**GHGs and Global Warming.** GHGs trap solar heat in the atmosphere. Increases in GHG emissions resulting largely from energy use have led to more heat being trapped in the atmosphere, leading to global warming. Major impacts of global warming include rising sea levels, higher temperatures and increased global migration of disease-carrying insects. While there is continuing scientific discussion regarding how quickly the earth's atmosphere will warm and when the adverse global warming impacts will occur, most scientists believe that GHG emissions must be reduced 50-80 percent in the next 50 years to minimize adverse impacts. CO<sub>2</sub> accounts for over 80 percent of GHG emissions and is the principal focus of GHG reduction programs. Electricity production (coal-fired power plants) accounts for 32 percent of U.S. GHG emissions, transportation 28 percent, industry 20 percent, agriculture 7 percent, commercial 7 percent and residential 6 percent. The U.S., with 5 percent of the world's population, generates 25 percent of global GHG emissions, more than any other country. The Supreme Court noted in the *Massachusetts* decision that U.S. auto emissions total 6 percent of global GHG emissions.

Market Report	Yr Ago	4 Wks Ago	3/30/07
<b><u>Livestock and Products,</u></b>			
<b><u>Weekly Average</u></b>			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight . . . . .	\$83.53	\$93.09	\$96.46
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb . . . . .	130.26	120.43	128.19
Nebraska Feeder Steers, Calves Med. & Large Frame 750-800 lb . . . . .	103.72	101.24	110.61
Choice Boxed Beef, 600-750 lb. Carcass . . . . .	140.19	149.29	154.06
Western Corn Belt Base Hog Price Carcass, Negotiated . . . . .	54.10	61.73	58.49
Feeder Pigs, National Direct 50 lbs, FOB . . . . .	51.32	71.58	69.48
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean . . . . .	58.93	68.51	64.94
Slaughter Lambs, Ch. & Pr., Heavy, Woolled, South Dakota, Direct . . . . .	68.00	80.00	84.75
National Carcass Lamb Cutout, FOB . . . . .	216.78	240.84	242.18
<b><u>Crops,</u></b>			
<b><u>Daily Spot Prices</u></b>			
Wheat, No. 1, H.W. Imperial, bu . . . . .	3.72	4.61	4.23
Corn, No. 2, Yellow Omaha, bu . . . . .	2.07	3.91	3.49
Soybeans, No. 1, Yellow Omaha, bu . . . . .	5.21	6.50	7.10
Grain Sorghum, No. 2, Yellow Columbus, cwt . . . . .	2.88	7.00	*
Oats, No. 2, Heavy Minneapolis, MN, bu . . . . .	1.97	2.61	2.85
<b><u>Hay</u></b>			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton . . . . .	130.00	*	135.00
Alfalfa, Large Rounds, Good Platte Valley, ton . . . . .	65.00	*	92.50
Grass Hay, Large Rounds, Good Northeast Nebraska, ton . . . . .	55.00	*	90.00
* No market.			

**International GHG Reduction Efforts.** In the 1992 Rio Global Climate Summit, 154 nations including the U.S. pledged to reduce GHGs to reduce global warming's harmful effects. The 1997 Kyoto Climate Treaty established mandatory GHG reductions for industrialized countries to be met by 2012. The 1997 U.S. Senate unanimously opposed our joining the Kyoto Treaty because developing nations (including China and India) were not regulated. The Kyoto Treaty took effect in 2005 when it was ratified by Russia. The U.S. has not ratified the Kyoto Treaty even though we produce more GHG emissions than any other country.

**GHGs and the CAA.** EPA regulates motor vehicle tailpipe emissions under the CAA. Catalytic converters change carbon monoxide (CO), a poisonous gas, into CO<sub>2</sub>. EPA has declined to regulate CO<sub>2</sub> tailpipe emissions principally because CO<sub>2</sub> is not harmful to breathe. On October 20, 1999 several environmental groups (ultimately joined by several states) formally requested the EPA to regulate GHG tailpipe emissions from new cars. In response, industry groups and several states (including Nebraska) opposed any new CO<sub>2</sub> tailpipe emissions. In 2001 EPA invited public comment regarding new CO<sub>2</sub> tailpipe emission requirements. The Bush administration requested a scientific review from the National Academy of Sciences, which in a 2001 report concluded that human activities (including auto emissions) are causing global warming.

On September 8, 2003 the EPA denied the CO<sub>2</sub> tailpipe emission rulemaking request because CO<sub>2</sub> was not an air pollutant. EPA did not dispute that man-made GHG emissions caused global warming. However, because it is not harmful to breathe, EPA concluded that CO<sub>2</sub> was not an air pollutant as defined by the CAA, and therefore could not legally be regulated. The Supreme Court ruled that the CAA definition of air pollutant was broad enough to include GHGs because their emission endangered the public welfare. The court rejected EPA arguments that because climate change is a global problem, EPA should not regulate CO<sub>2</sub> emissions from autos because that alone would not prevent global warming. The court noted that Congress as well as administrative agencies rarely can solve a massive problem, such as global warming, in "one fell regulatory swoop." The fact that many steps are needed to solve the problem doesn't mean that they must all be taken together or not at all. Because the CAA **requires** (not merely allows) EPA to regulate air pollution emissions from motor vehicles, the court ordered EPA to proceed in establishing CO<sub>2</sub> tailpipe emission standards. The four dissenting justices concluded that Massachusetts and the other plaintiffs seeking the CO<sub>2</sub> tailpipe emission limits were not legally authorized to challenge the EPA decision not to regulate. The dissenters also concluded that CO<sub>2</sub> is not an air pollutant as defined by the CAA because it is not harmful to breathe.

**Decision Implications.** Before the 2006 Congressional elections the prospects for federal action to reduce U.S. GHG emissions were poor. However, the new Democratic leaders of the 2007 Congress have made regulating GHG emissions a high domestic policy priority. The Supreme Court's *Massachusetts* decision improves the likelihood of new legislation regulating GHG emissions, probably focusing on reducing CO<sub>2</sub> tailpipe emissions and establishing a "cap and trade" CO<sub>2</sub> emission trading program for power plants (similar to what the European Union has established under the Kyoto treaty). Under cap and trade, coal-fired power plant CO<sub>2</sub> emissions would be "capped" or limited, and power plants would be given (or sold) emission allowances. The number of allowances would be reduced over time to reduce power plant CO<sub>2</sub> emissions. As the cap shrinks, power producers would have to reduce CO<sub>2</sub> emissions, e.g. by switching to nuclear energy generation. A CO<sub>2</sub> cap and trade program will lead to higher electricity prices for all users, making more costly, but cleaner "alternative" energy sources (such as energy conservation and wind and solar power) more attractive. "Clean fuel" requirements to reduce auto CO<sub>2</sub> emissions could result in higher auto fuel prices, but could also increase the demand for cleaner biofuels, such as ethanol. CO<sub>2</sub> tailpipe emission requirements would lead to higher car prices, at least some of which would be offset by the new cars' improved fuel efficiency. Nebraska livestock producers may ultimately be affected if livestock feeders are required to capture methane emissions from manure (methane is a GHG). The *Massachusetts* decision may be the first step in the direction of a more sustainable U.S. energy policy.

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