Economics

Burning Dinner

Government's scheme to fill gas tanks leaves stomachs empty.

By Timothy P. Carney

THE "FATAL CONCEIT" that Friedrich Hayek wrote about—the hubristic belief that intelligent central planners can better advance the common welfare than can people acting freely—is often used as an analogy or, at least, an overstatement. In the case of ethanol, however, it is literal: by pushing this fuel on us, governments could be starving people to death.

As food prices worldwide shatter records, a quixotic campaign has been launched on the Left and the Right to roll back the government programs that force ethanol upon the American population. Other countries, too, are rethinking programs that turn plants into fuel. The lobby to defend ethanol subsidies and mandates is entrenched-agribusiness, some venture capitalists betting big on government action, and certain hawkish conservatives hoping to end our dependence on Arab and Venezuelan oil. But with corn futures topping \$7 a bushel, riots over food prices erupting around the world, and landscapes in the U.S. changing forever, political support for this subsidized moonshine may be on the wane.

This much is clear: burning food for fuel threatens people's ability to eat.

Ethanol is alcohol squeezed and distilled from agricultural products. In the United States, it almost all comes from corn, while in other countries, most notably Brazil, sugar is the feedstock for ethanol.

Corn ethanol is basically unaged bourbon whiskey—it's the same thing backwoods moonshiners in the mountains of Kentucky and West Virginia used to make in order to dodge the excise tax or skirt Prohibition. With a gallon of ethanol, you could have a pretty good party on your front porch or drive your Honda Accord about 20 miles on the highway. (You would probably damage your car's engine if you didn't blend it with gasoline.) On an ethical level, many writers have asked recently whether it's immoral to burn food for fuel. The complementary question, especially for an Irishman, is whether it's a sin to pour your booze into a gas tank.

For a century, we've known that grain alcohol can fuel a car. Henry Ford foresaw his automobiles running on ethanol. But gasoline proved to be cheaper and more powerful—a gallon of gasoline will take that same Honda Accord about 30 miles on the highway—and burning corn for fuel was not the most profitable way to use cropland or corn.

But the oil crisis of the late 1970s convinced Uncle Sam to get in the moonshine business. Over the years, governments have found a handful of reasons to subsidize ethanol: it gets us off of foreign oil, it's an oxygenate that helps turn deadly carbon monoxide into harmless (or so environmentalists used to argue) carbon dioxide, and it benefits farmers. The true motivation for government support of ethanol, of course, has been the political influence of the ethanol lobby-Archer Daniels Midland, the world's top ethanol producer, is legendary for its political connections, and Iowa's role in the presidential nominating process has made corn converts of many ambitious politicians.

In the Energy Tax Act of 1978, Congress created a special carve-out to boost ethanol: gas stations could earn a 4-cent credit against the gas tax for selling gasoline that included at least 10 percent ethanol. If you ran a gas station and bought a gallon of ethanol for \$2.00, you were really only paying \$1.60 because of the tax credits.

This tax credit eventually grew from effectively 40 cents per gallon of ethanol to 52 cents and was then switched from a gas-tax credit to an income-tax credit. But Washington didn't stop there. Congress imposed a tariff on imported ethanol of 54 cents per gallon and granted huge allowances in federal fuel-economy standards to carmakers who sold cars that can run on high-percentage blends of ethanol. States soon piled on with subsidies for ethanol processing plants and for gas stations that installed pumps for E-85 (85 percent ethanol).

More recently, with all these subsidies still insufficient to create a booming demand in ethanol, Congress dropped the carrot and picked up the stick: the 2005 Energy Bill mandated that gas companies buy biofuels. In 2007, Congress boosted the mandate so that now U.S. consumers are required to buy 9 billion gallons of ethanol. By 2022, the mandate will be 36 billion gallons.

The lesson is clear: people would hardly buy ethanol as fuel if not for government action. Without the subsidies and mandates, ethanol demand would be negligible, which would be a good thing.

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The facts about ethanol that required these subsidies and made it an unsustainable product on the free market also make its widespread use damaging. The energy inputs-fuel to run the tractors, make the fertilizer, distill the alcohol, and ship the product-are huge, and the output, again, is small. (Gasoline is 50 percent more powerful than ethanol.) What is the return on investment, energywise? Experts disagree, but the government numbers reflect a 25 percent gain. while Cornell University scientist David Pimentel concludes that more fossil-fuel energy goes into making a gallon of ethanol than comes out of it-a literal waste of energy.

received \$5.15 for a bushel of corn in May, up from an already high \$3.49 a year ago. Corn futures, trading near \$2.50 on the Chicago Board of Trade throughout 2006, climbed to almost \$7 this past month.

And because farmers are growing corn instead of other crops and selling corn as fuel instead of as cattle feed, the prices of other crops and animal products have been affected as well. Consumer Price Index figures from April (the most recent month for which data is available) show soaring prices among many staples. Bread is up to \$1.37 per pound, a 32 percent increase from March 2006, just before the ethanol

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In any event, ethanol requires land acres and acres of farmland. In one year, according to Hudson Institute expert Dennis Avery, an acre of corn yields 375 gallons of ethanol. That means that this year, 24 million acres of farmland have essentially become oilfields. Avery writes that "total U.S. crop plantings have recently been about 440 million acres," meaning that more than 5 percent of all cropland might be dedicated to meeting the federal ethanol mandates. Other subsidies and state mandates could drive land usage for ethanol higher.

Joseph Glauber, chief economist at the U.S. Department of Agriculture, estimates that nearly one-third of the entire U.S. corn crop this year will be dedicated to ethanol, up from about 7 percent in 2000.

The economics are simple: when corn is being used for fuel and farm fields are no longer producing food or feed, the price of food and feed goes up. The USDA's National Agricultural Statistics Service finds that farmers mandate went into effect. Eggs and milk are also up for the same period, 59 and 20 percent respectively. Ground chuck has climbed 10 percent, following an 18 percent bump from 2003 to 2006. Beer prices are climbing, too, spurred in part by higher costs for energy, bottling, and water, but price spikes in the agricultural elements of beer are the big drivers—barley is up 87 percent since 2006, while hops have more than tripled.

These rising prices hit consumers in obvious ways, but they can also ruin small businesses. Higher ingredient costs may cut into Budweiser's bottom line, causing a 1.4 percent drop in profits. But for smaller microbreweries, ones with narrower profit margins, continued increases in ingredient prices could be disastrous. In Mexico, familyoperated tortilla stands have had to hike their prices, so the poor clientele are switching to cheaper, mass-produced foods like Cup-a-Noodles.

Ethanol is obviously not the only factor driving up these prices. The falling

dollar and rising oil costs make up much of the increase. But even the Department of Agriculture, an ethanol partisan, reports that ethanol could be responsible for 25 percent of the rise. The International Food Policy Research Institute estimates that ethanol is responsible for 30 percent of the increase.

For a middle-class American, increased grocery bills are a drag. For poor Mexicans, higher corn prices can be devastating. In January 2007, thousands of Mexicans took to the streets to protest high tortilla prices, which since 2006 have nearly tripled in some places.

It's an understatement to call tortillas a staple of poor Mexicans' diets: they provide 40 percent of their protein, according to Mexican nutrition expert Amanda Gálvez, who told the *Washington Post*, "It is absolutely crucial for our population to keep eating tortillas."

The *Post* explained the connection between ethanol and tortilla prices:

Ethanol, which has become more popular as an alternative fuel in the United States and elsewhere because of high oil prices, is generally made with yellow corn. But the price of white corn, which is used to make tortillas, is indexed in Mexico to the international price of yellow corn, said Puente, the Mexico City economist.

This year, we have seen food riots in Haiti and Bangladesh. Here again, many factors have driven up food prices, including the bad policies of these Third World governments. But it's undeniable that bad government policies in the U.S. are exacerbating the global problem in places where high food prices could mean starvation or malnutrition.

It's strange, in a way: ruthless capitalism is supposed to cause poor people to starve. Instead, the first food crisis of the millennium has been caused by biggovernment policies pushed in the name of the environment. Increasingly, though, environmentalists are turning on ethanol as they see the harm it does to land and water.

American Rivers, a nonprofit, now lists the corn-country Niobrara River in Nebraska as one of the ten most endangered rivers in the U.S., thanks in part to the huge diversions of water that irrigating corn for ethanol requires. This is a major cause of concern as the Niobrara provides habitat for some threatened species, such as piping plovers, least terns, and whooping cranes. University of Iowa (of all places) engineering professor Jareld Schnoor concluded that ethanol's toll on the water supply "is clearly not sustainable." In February, Newsweek writer Jim Moscou told the story of Yuma County, Colorado, "one of the top-three cornproducing counties in the country" where one man in the ranching business told him, "The lakes are gone. The wetlands are gone." "We're going to make the area a desert," the former rancher predicted. Ethanol's water pinch-and not just its land grabhurts ranchers, which makes meat more expensive.

Ethanol slurps up water throughout its process, not just in irrigation. After the corn is harvested, ground, and dried, plenty of water is needed to ferment and distill it. A recent *Economist* article told the story of one ethanol plant in Florida:

Officials in Tampa, Florida, got a surprise recently when a local firm building the state's first ethanolproduction factory put in a request for 400,000 gallons a day of city water. The request by U.S. Envirofuels would make the facility one of the city's top ten water consumers overnight, and the company plans to double its size. Florida is suffering from a prolonged drought. Rivers and lakes are at record lows and residents wonder where the extra water will come from.

In addition to drying up our rivers and aquifers, ethanol could be polluting our drinking water. Corn needs lots of nitrogen fertilizer, and a good portion of those chemicals leaks back into the soil. University of Minnesota soil scientist Gyles Randall explained the process to Minnesota Public Radio: "More nitrogen on the field means more runoff. When farmers plant corn year after year, the soil becomes clumpy and hard to manage."

Randall says farmers will need to till their fields more often. More tilling means more erosion. And erosion increases runoff.

Some of that runoff ends up in Minnesota's rivers and lakes. But Randall says that in the southeast, that runoff gets absorbed into the aquifers. "We will see an upturn in the nitrate concentration in the groundwater, and then we sink our wells into that groundwater," he says. "That becomes the drinking mandates; the press is usually not so skeptical about environmental measures or big-government programs. Now it's conventional wisdom that ethanol carries with it a parade of unintended dislocations. But will this bad press spur a change in policy?

Efforts are afoot to pull back our federal ethanol program. Congressman Jeff Flake has introduced a bill to undo the mandate. A coalition of free-market groups, together with the Grocery Manufacturers Association, is leading a pushback on ethanol incentives.

With food prices high and pocketbook issues promising to play a central role in the 2008 presidential and Congressional elections, Republicans could grasp an opportunity here. John McCain has consistently opposed ethanol subsidies, and he even went out of his way to do so in Iowa. Barack Obama, on the other hand, is an ethanol backer. The Democratic Congress expanded the ethanol mandate in 2007, and so Republican challengers and open-seat candidates could pin some of the high food prices on Democrats eager to please the agribusiness lobby.

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water supply for many in this state." High nitrogen levels cause health problems in children and pregnant women.

There's also the problem of monoculture, which has serious potential longterm downsides. By encouraging farmers to grow one crop season after season and eschew crop-rotation, ethanol subsidies are depleting soil of nutrients, probably causing even greater damage for the future.

For a limited-government conservative, it's gratifying to see the mainstream media take on ethanol subsidies and Ethanol could become the start of an alliance between McCain's good-government instincts and small-government conservatives, but neither the presumptive nominee nor Congressional Republicans seems to be as focused on ethanol as the media is. In the flurry of the election season, the issue may get backburnered—but high food prices seem here to stay.

Timothy P. Carney is author of The Big Ripoff: How Big Business and Big Government Steal Your Money.