

Myths and Facts about the Renewable Fuel Standard

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Abstract

A severe global food crisis has led to widespread chronic hunger and social unrest. One of the major contributors is the conversion of food crops into biofuel. The United States' Renewable Fuel Standard sets increasing quotas for biofuel production, which is being met by the conversion of corn to ethanol. Here we address some arguments recently made in favor of continuing the RFS policy and show that the scientific evidence does not support those arguments.

The Renewable Fuel Standard (RFS), a federal policy requiring that ethanol be blended into the U.S. gasoline supply in annually increasing amounts, has been touted by the biofuels industry as the solution to a myriad of energy woes [1]. But in the seven years since the policy was enacted, the RFS has failed to meet its goals of protecting the environment and reducing dependence on foreign oil. It has and is forcing Americans to pay more for fuel, and it has raised food prices around the world. And yet, ethanol lobbying groups continue to argue on behalf of the policy, armed with an array of invalid claims:

Myth: “Oil is the cause of casualties abroad and economic volatility at home.”

Facts: Corn to ethanol conversion has been shown to be a main contributing factor in global food price increases [2] that lead to unrest across the world [3]. This unrest is a major security concern for the United States as well as the international community. Economic volatility in the United States has not been associated with oil [4], but with the financial crisis and its catalysts [5], including crashes in the mortgage and equity markets. Governmental policy changes undermining the stability of markets as well as financial panics due to investor “herding behavior” [6] are among the primary causes for economic turmoil in the United States.

Myth: “RFS costs nothing to taxpayers.”

Facts: Taxpayers directly paid over \$30 billion for the ethanol tax credit that expired in December 2011, and legislation passed earlier this year secured another \$2.2 billion in tax credits for renewable fuels producers [7].

And the costs go far beyond direct tax subsidies.

Perhaps the most noticeable impact of the RFS is the rise in food prices. Diverting corn to ethanol has resulted in food price increases that affect all consumers as well as taxpayers who support government food assistance programs. Since the amendment and expansion of the RFS in 2007, food prices in the United States have risen 28 percent faster than inflation, according to data from the Bureau of Labor Statistics [8] and FarmEcon, LLC [9].

Myth: “Blending ethanol into the fuel supply lowers the cost of gasoline.”

Facts: It’s true that blending ethanol into gasoline lowers the price per gallon-but it also lowers the gas mileage, and it lowers the gas mileage more than the price. Ethanol contains just 2/3 the energy of gasoline, so adding ethanol waters down the gasoline and consumers pay more money to drive the same distance [10]. Mixing ethanol into gasoline means that every consumer pays more for fuel than she otherwise would.

Myth: Our dependence on oil is stifling consumer choice.

Facts: The RFS mandate does not increase consumer choice because it is a de facto mandate [11] that all gasoline contain 10 percent ethanol. According to the U.S. Energy Information Administration, in 2012 ethanol comprised 9.9 percent of all motor fuel [12], meaning that virtually all gasoline available to consumers indeed contained 10 percent ethanol [13]. The RFS has not provided an increase in consumer choice.

Myth: RFS is decreasing the overall negative impacts of oil dependence on our economy.

Facts: Renewable fuels account for only one percent of U.S. energy consumption [13], which does not create a major impact on U.S. energy needs. Moreover, the production of ethanol from corn requires almost as much fossil fuel energy as the energy eventually returned by burning the ethanol. This means the energy gains from ethanol amount to much less than one percent of energy consumption. On the other hand, ethanol production consumes four percent of total global grain production, which is enough food to feed over half a billion people [13], significantly impacting world hunger.

As the RFS plays out, data continue to show that the policy is doing much more harm than good.

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