

Biofuels policies do increase food prices

Literature review disproves biofuels industry “alternative facts”

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Summary

Policies to promote food based biofuels do lead to increases in food prices, an extensive independent literature review has concluded. The analysis considered over one hundred economic modelling studies of the potential impact on prices of increased biofuel demand and over two dozen assessments of the role biofuels demand played in the 2006-08 food price crisis. The size of the price resulting directly from biofuels varies depending on the study, feedstock and size of demand, but the overwhelming body of evidence shows significant price increases with a range of results from 16-171%/EJ biofuels produced, EU vegetable oils having the highest impact.

The contribution of biofuels to the 2006-2008 food price crisis

Over the period 2006-2008 there was a substantial spike in food prices. The global cereal and vegetable oil prices more than doubled, while the overall FAO food price indicator rose by 60%. A review of available studies of the crisis found that biofuels policies significantly contributed to the price rise during that time. The US corn ethanol mandate is estimated to increase the price of maize by 20 to 70%. EU biofuels policies also played a role, especially with regards to increases in vegetable oil prices. Biofuels were not the only cause; low commodity stocks and export bans due to bad harvests also playing a role but the body of academic literature shows biofuels were a significant contributor.

Impact on food prices of current biofuel policies

The food price crisis happened at a time of growth in the biofuels industry. Now this growth has slowed prices are steadier but higher on average. For example; palm oil and wheat inflation adjusted price is 47% and 32% higher respectively compared to 2005 although not all of this increase can be accounted to biofuels. The studies reviewed show a range of commodity price increases due to biofuels ranging from 16-171%/EJ biofuels produced. EU vegetable oils have the highest impact of 171% higher prices in EU per exajoule of biodiesel produced, and for EU oilseeds (before crushing to oil and meal) an increase of 25% is reported. At a global level biodiesel demand is associated with an increase of 38%/EJ on vegetable oil prices. Ethanol feedstocks have also significant impacts, with wheat ethanol increasing global wheat prices by 20%/EJ and sugar based ethanol increasing world sugar prices by about 40%/EJ.

There is little likelihood of an imminent threat of a repeat of a sudden price hike due to biofuels, as the growth potential of food-based biofuels in the EU and the US now appears limited. However, the study highlights that biofuels policies increase the volatility of food prices because of climate change and the increasing uncertainty in agricultural output. A future food price crisis in which additional demand caused by biofuels policies would play a role is entirely possible.

In the EU and other developed nations, the food commodity price has only a small impact on the consumer price of food, as processing, distribution and overhead plays a significant role in food prices. In developing

countries however, the impacts can be large as the price of food staples can represent a third or more of total household spending, and food consumption is more sensitive to food commodity prices. Even small increases in food prices therefore result in food insecurity, and in reduced welfare through reduced income available for non-food needs. It should be recognized that the impact of increased prices will be felt differently by different individuals and communities. The urban poor and rural households that are net food buyers will be the most negatively affected, and domestic prices in some developing countries will be more strongly affected by global price changes than in others.

Price impacts of future EU policies

The impact on food prices of different policy options now being considered under the REDII were also analyzed based on data from the different studies. Maintaining the food-based biofuel demand at 7% of transport energy to 2030 could result in global vegetable oil prices 8% higher and cereal prices 0.6% higher than they would be in the case of a full phase out of food-based biofuel demand. These estimates are based on the feedstock mixes and elasticities of the [Globiom](#) study. The price increases are comparable to the findings from the Globiom and IFPRI modelling studies and the [EU agricultural outlook](#) shows similar price impacts in the EU for phasing down the demand to around 4%. These higher prices would result in \$19 billion of additional costs to other consumers of cereals and vegetable oils in 2030. Reducing the cap to 3.8% would approximately halve the price impact from the policy, and correspondingly halve the cost to other consumers. Depending on the scenario, EU consumers could be paying 49% to 67% of the total increase in food prices.

Biofuels do increase food prices

100+

100+ studies confirm policies supporting food-based biofuels increase food prices (as demand for commodities increases)

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Source: Ceruly

Policy recommendations

To date, EU biofuels policy has failed to deliver [greenhouse gas reductions](#) largely since the majority of growth in food-based biofuels came from high carbon intensity [palm oil since 2010](#). This literature review demonstrates the policy has also had a negative impact on food prices. The European Commission proposal to phasing down food-based biofuels is a step in the right direction, but a more ambitious phase-out is needed to put EU fuels policy on a clean track. T&E recommends the following to EU policy makers:

Phase-out food based biofuels by 2030. The smaller the demand for food-based biofuels the smaller the impact on food-prices.

Start the phase-out with biodiesel from vegetable oils. Apart from the significant Indirect Land Use Change (ILUC) emissions, it is especially relevant as the price impact is much higher in the vegetable oil market. This is due to EU biodiesel market being around 80% of all EU biofuels.

Exclude food based biofuels from sectorial targets. The current 10% target in the Renewable Energy Directive has driven supply of the cheapest and least sustainable biofuels. It is important to discontinue the binding transport target after 2020, as proposed by the Commission, while at the same time excluding them from eligibility in the advanced fuels target.

Focus on long lasting climate solutions to decarbonize transport fuels, such as electrification and sustainable advanced biofuels. For the latter, it is crucial to put in place a clear and appropriate sustainability framework, while placing incentives at sustainable levels of availability.

The biofuels industry has repeatedly claimed the use of food based feedstocks does not lead to increase food prices. This independent meta-analysis of over 100 pieces of academic research strongly refutes their claims. It is time for the biofuels industry to stop using “alternative facts” and debate the impacts of biofuels based upon robust evidence not conjecture.

Further information

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