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Splashing and Dashing Biodiesel

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Splashing and Dashing Biodiesel

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Volumetric excise tax credits—more commonly known as blenders tax credits—have been in place since 1978 for ethanol and since 2004 for biodiesel. The ethanol subsidy will fall from its current level of 51¢ per gallon today to 45¢ per gallon on January 1. The biodiesel subsidy is $1.00 per gallon (50¢ per gallon for previously used oils or grease). The subsidy is paid on every gallon of ethanol or biodiesel that is blended in the United States with any quantity of fossil fuel. All biofuels blended with fossil fuels are eligible for the subsidy regardless of where the biofuels were produced or where the blend is consumed. The blenders tax credit reduces the tax liability of blenders, so it is equivalent to the U.S. Treasury writing a check to blenders for each gallon of biofuels they use. The purpose of the subsidy is to increase the willingness of blenders to buy U.S.-produced biofuels and to increase the domestic price of biofuels. It has undoubtedly met these objectives for U.S.-produced corn ethanol. But opponents of the biodiesel blenders credit argue that its main effect is to subsidize biodiesel produced in Southeast Asia, South America, and Europe that is destined for European consumption.

Incentives to Splash and Dash

European biodiesel producers were the first to protest against the sharp increase in biodiesel imports coming from the United States beginning in 2007. The Europeans argue that the only reason U.S. exports have increased is a misuse of the blend-ers tax credit through a mechanism called “splash and dash.” The practice consists of blending (“splashing”) 0.1 percent of U.S. diesel fuel with 99.9 percent of imported biodiesel and then shipping (“dashing”) the resulting blend to the European Union.

The payoff to splash and dash is large. Consider a 2.5 million gallon shipment of Malaysian biodiesel destined for Europe. At a biodiesel price of $4.00 per gallon, this shipment is worth $10 million. If the tanker makes a port stop in the United States and adds 25,000 gallons of diesel to its load, the company will collect a $2.5 million tax credit, thereby increasing the value of its cargo by 25 percent. This additional payment potentially allows imported biodiesel to compete successfully with E.U.-produced biodiesel. The incentive to re-export imported biodiesel is so high that tankers of biodiesel produced in Europe were shipped to the United States this summer to receive the $1.00-per-gallon subsidy.

Instead of U.S. taxpayers taking the lead in stopping this misuse of a domestic biofuels program, it is the European biodiesel industry that has argued most strenuously against what it calls an unfair trade practice. The Europeans claim the mechanism is damaging local producers, constitutes export dumping, and that the program violates World Trade Organization agreements. The European Biodiesel Board presented a formal complaint before the European Commission, which found sufficient evidence to launch an investigation. The investigation will determine whether placing tariffs (either countervailing or antidumping) on U.S. biodiesel is warranted. On the U.S. side, there is growing opposition as the cost to taxpayers increases to the millions of dollars. Legislation that would prevent imported biodiesel that is subsequently exported from collecting the subsidy passed the House of Representatives and Senate and has been sent to a conference committee. The bill (H.R. 6049) has the support of the National Biodiesel Board. But critics (including European producers) contend that it does not go far enough in solving the problem, because U.S.-produced biodiesel could still receive the subsidies before being shipped overseas.

For the E.U. claims of subsidy-driven triangulation and increased exports to be plausible, we should expect to see simultaneous increases in levels of both imports and exports of biodiesel in the United States. Notice, however, that this does not necessarily provide irrefutable evidence that biodiesel is being routed through the United States with the sole purpose of collecting subsidies. The trade statistics can also be used to provide a rough estimate of how much U.S. taxpayers are spending to subsidize fuels to be consumed abroad. The distribution of the benefits across regions can also be approximated.
Estimation of Taxpayer Losses

Obtaining accurate figures of international trade of biodiesel is not easy because biodiesel trade data is combined with data on other goods in trade records. However, reasonable approximations can be made.

U.S. biodiesel trade has increased sharply since 2005. While imports increased by over 210 percent between 2006 and 2007, exports increased by a staggering 684 percent in the same period (Figure 1). The figure also shows that trade will likely experience another significant jump in 2008 since both imports and exports largely exceeded the 2007 figures in the first eight months of the year alone. The European Union is the destination of a vast majority of biodiesel exports. Imports from Southeast Asia surged during 2006 and 2007. South America is currently challenging that dominance, mainly because of the rapid growth of the Argentinean industry.

Further insight into the destination of biodiesel produced or imported into the United States can be gained by incorporating information on domestic production and consumption (Table 1). Clearly, domestic production experienced a strong increase between 2006 and 2007 and is poised for continued growth during 2008. However, consumption figures point to a different story, whereby declines seem likely this year, indicating that U.S. producers are favoring the European Union over domestic destinations for their product. Interestingly, exports have exceeded production levels during the first eight months of 2008, hinting that at least some of the exports originated abroad.

It is reasonable to assume that all biodiesel produced in the United States or imported will claim the blenders credit. In this case, the biodiesel tax credit has cost taxpayers about $1.28 billion between January of 2007 and August of 2008. About $360 million of this amount was awarded to foreign-produced biodiesel.

On the demand side, $504 million was used to subsidize biodiesel consumed in the United States whereas $782 million was used to subsidize biodiesel consumed by the European Union. The implications of closing the splash-and-dash loophole are difficult to ascertain, as this will affect the dynamics of both domestic production and international trade.

**Figure 1. United States imports (a) and exports (b) of biodiesel by main destination for the 2006–2008 (January–August) period**

Table 1. Supply and utilization of biodiesel for the 2006–2008 period

<table>
<thead>
<tr>
<th></th>
<th>Exports</th>
<th>Imports</th>
<th>Production</th>
<th>Consumption*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>36</td>
<td>47</td>
<td>199</td>
<td>209</td>
</tr>
<tr>
<td>2007</td>
<td>283</td>
<td>146</td>
<td>487</td>
<td>350</td>
</tr>
<tr>
<td>2008 (Jan.-Aug.)</td>
<td>498</td>
<td>212</td>
<td>440</td>
<td>154</td>
</tr>
</tbody>
</table>

**Source:** Constructed by the authors based on USDA-FAS and U.S. Census Bureau data.

*aCalculated as a residual assuming stock levels are zero.*

Continued on page 11
**How Low Will Corn Prices Go?**

*Continued from page 3*

Drop this much, even if crude oil does drop to $50 per barrel. The reason is that at such a low corn price, speculators would likely move into the market to buy corn for delivery in the 2009 marketing year. Furthermore, at $2.15 per bushel corn farmers would not plant enough corn in 2009 to meet the almost 13-billion-bushel demand.

**Backstopping Prices with Ethanol Mandates**

Under the new Renewable Fuels Standard, U.S. gasoline blenders must blend 10.5 billion gallons of ethanol in the 2009 calendar year. In 2010, this mandate increases to 12 billion gallons. This means that 11.5 billion gallons must be produced from 2009 corn supplies. With crude oil at $50 per barrel, it is doubtful that Brazil will export large amounts of ethanol to the United States because of the import tariff, so the U.S. ethanol industry will need to produce much of this amount. An ethanol level of 11.5 billion gallons requires 4.2 billion bushels of corn. With at least 8.7 billion bushels of non-fuel demand for corn, 12.9 billion bushels of corn will be needed in 2009. At a trend yield of 154 bushels per acre, this will require 83 million harvested acres or about 90 million planted acres. Simply put, U.S. farmers will not plant 90 million acres of corn if the price of corn is $2.15 per bushel because this corn price would not cover the additional production costs of planting corn after corn. Given recent experience, it will likely take a price of more than $3.50 or $4.00 per bushel to induce farmers to plant the required acres. At $2.00 corn, the United States would be lucky to see 75 million acres planted.

So what is the outlook for corn prices? If crude oil prices rise, so too will corn prices. If crude oil prices fall, corn prices will fall through the remainder of the 2008 marketing year, but only to a point. They cannot fall too far because speculators would move into the market. Recall that 2009 prices must be high enough to induce farmers to plant enough acres in 2009 to meet ethanol mandates. Thus, there is a limit to how far 2008 prices can go before corn buyers will begin to buy 2008 corn for delivery at the 2009 prices. At this point, 2008 prices will not fall any further.

The bottom line is that ethanol mandates place an effective floor under corn (and soybean) prices. This floor price is particularly relevant for new-crop futures prices before the 2009 crop is planted because of the need to buy corn acres to meet ethanol mandates. Post-planting prices will reflect crude oil prices and expectations about corn yields. Farmers looking to 2009 should look at their own costs and returns to figure out how high corn prices will need to be to ensure that 90 million acres of corn are planted in 2009.

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Additionally, the decision about whether or not to restrict the subsidy to only biodiesel consumed in the United States will have a large impact on the biodiesel industry because the export market is taking an increasingly large proportion of production.

**Sorting Policy Impacts**

Available data indicate that a large proportion of the biodiesel imported into the United States is later re-exported to the European Union. The E.U. market is also the main outlet for much of the biodiesel produced in the United States. Together, these export volumes explain why E.U. producers have been so opposed to U.S. biodiesel subsidies. While E.U. producers have sound reasons to protest, U.S. taxpayers should also know that they are subsidizing biofuels that allow the European Union to meet its biofuels targets at a lower cost. When evaluating alternative policy options for addressing the splash-and-dash controversy, an essential question to ask is, Do the benefits to U.S. taxpayers from a domestic biodiesel industry outweigh the costs of subsidizing biodiesel produced or consumed in other countries?

**For More Information**