Trump Walks Ethanol Mandate Tightrope

Administration tries to placate competing interests.

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CME Group
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Threat of Further Upset

For the second year in a row, the Trump administration finds itself walking a tightrope between farmers and the oil industry in making renewable fuel policy decisions. On one side, the corn farmers want higher mandates for ethanol blending into gasoline. On the other side, refiners are fighting to keep market share and avoid regulatory costs. Moves so far to increase ethanol sales favor the farmers slightly, but upcoming decisions on refinery waivers threaten to further upset whichever party emerges worse off. This note reviews the interests of competing parties to the dispute.

The Energy Policy Act of 2005 and the 2007 Energy Independence and Security Act, or EISA, mandated increasing use of renewable components blended into gasoline and diesel to reduce U.S. reliance on imported fossil fuels. By far the largest renewable fuel component is ethanol, made from corn, which now commonly makes up 10% of most gasoline, a blend known as E10. The EISA includes a mandate for a renewable fuel standard, or RFS, that requires refiners and importers to blend minimum renewable volume obligation, or RVO, quantities into their fuel based on gasoline and diesel sales into the domestic market. These RVOs increase over time to meet growing RFS annual targets set by the Environmental Protection Agency. Refiners and importers that fail to meet their RVO are subject to heavy fines. RVOs are met when obligated parties surrender renewable identification numbers, or RINs, that are attached to every gallon of renewable produced and released when that renewable is blended with gasoline or diesel.

Just over a year ago, we detailed the Trump administration's dilemma over renewable fuel policy between two competing constituencies, namely corn farmers wanting higher ethanol mandates and refiners wanting lower mandates and revisions to the secondary market for RINs (see our April 2018 note Trump Strings Along Farmers and Refiners With Waivers). In September 2018, we noted that, with ethanol prices below gasoline, blenders would have incentives to increase ethanol levels if the administration lifted a ban on year-round sales of an E15 blend gasoline that contains 15% ethanol (see Cheap Ethanol Threatens Refiners' Gasoline Share). That ban was lifted on May 31 this year by an EPA ruling that extended E15 sales year-round. However, the concession has limited short-term impact since less than 2% of retail fueling stations currently offer E15. (Longer term it would increase ethanol's share of the gasoline market by 5% if adopted nationwide.) A more impactful concession to refiners last year was the EPA's granting of small refinery exception waivers to about 30 plants that removed their RIN obligations as well as the rescinding of outstanding RINs owed by the recently closed Philadelphia Energy Solutions refinery as part of that company's bankruptcy settlement. These reduced refiners' blending obligations enough to collapse RIN prices to negligible levels.

But refinery waivers last year and the lifting of the E15 ban this year have placated neither farm nor oil lobbies. The owners of 38 refineries have filed applications for RFS obligation waivers again this year, but according to a July 10, 2019, Reuters article, Trump administration officials have held up an EPA decision on these waivers for fear of angering farmers who regard them as diluting the ethanol mandates. With both sides to this dispute representing natural Trump supporters, the administration is walking a tightrope trying to keep them happy.

Here's our latest roundup of the parties to this issue:

Corn Farmers

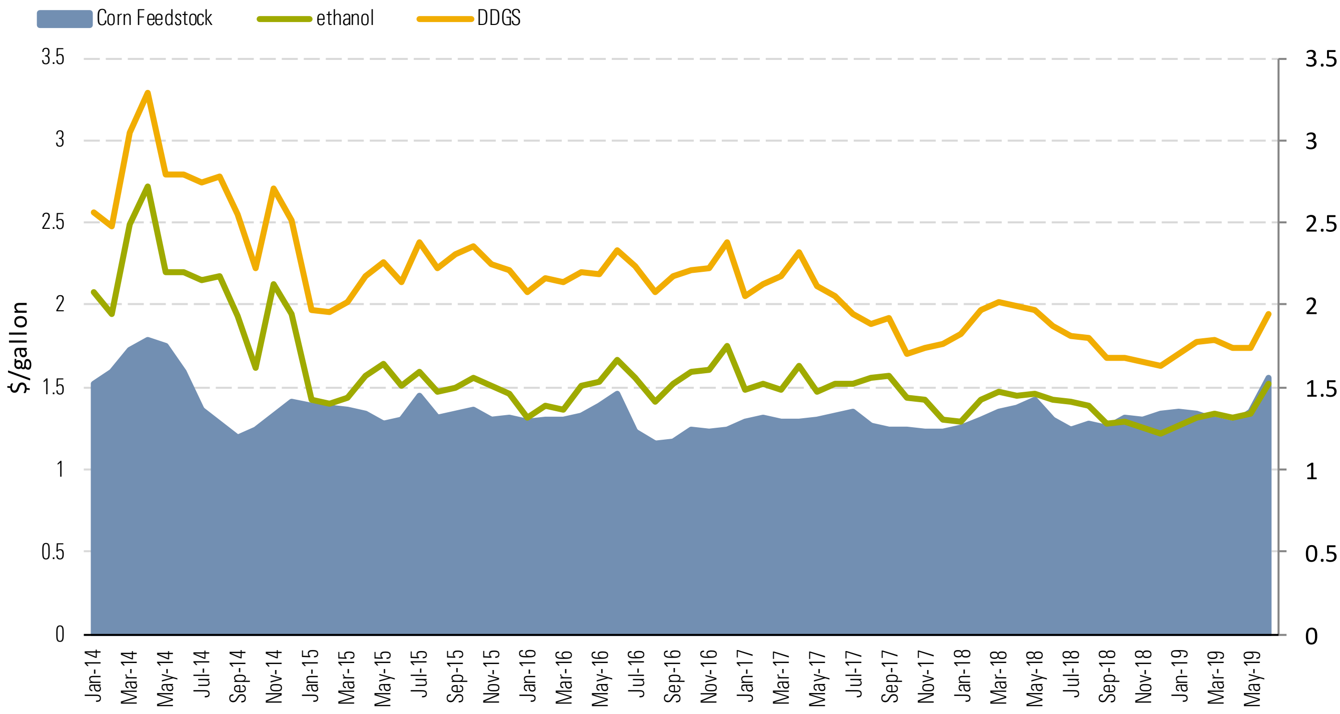
Higher ethanol mandates favor corn farmers because they sell about 40% of their crop to ethanol processing plants, primarily in the Midwest Farm Belt. In an agricultural business vulnerable to changing climate and recently affected by trade tariffs, ethanol mandates represent steady demand. Corn prices are higher this year than last due to deteriorating crop prospects considering wet weather and flooding in the Midwest. Prices for prompt Chicago Board of Trade corn futures were $4.41/bushel on July 15, 2019, up 23% since May 1. Those higher prices bring more revenue per bushel but don't necessarily compensate for a smaller crop.

Promised expansions to ethanol blending mandates to replace gasoline haven't materialized—at least at the rates initially promised by RFS legislation—in part because gasoline demand has been static in recent years and also because the advent of shale has reduced U.S. dependence on imported oil. The overall EPA ethanol mandate for 2019 is unchanged from 2018 at an implied 15 billion gallons/year. According to U.S. Energy Information Administration weekly supply data, current ethanol demand for domestic gasoline blending is level with last year at a rate that equates to 14.3 billion gallons/year. That rate would increase if gasoline sales climbed or if E15 sales take off. Neither seems likely in the short term.

Ethanol Producers

Ethanol producers are hurting on several fronts this year. High corn prices have virtually eliminated their processing margins. They make no money distilling corn into ethanol but rely on byproduct distillers' dry grain, or DDG, for a $0.40/gallon margin (Exhibit 1). If ethanol margins stay low, plants will cut capacity, which could weigh on corn prices.

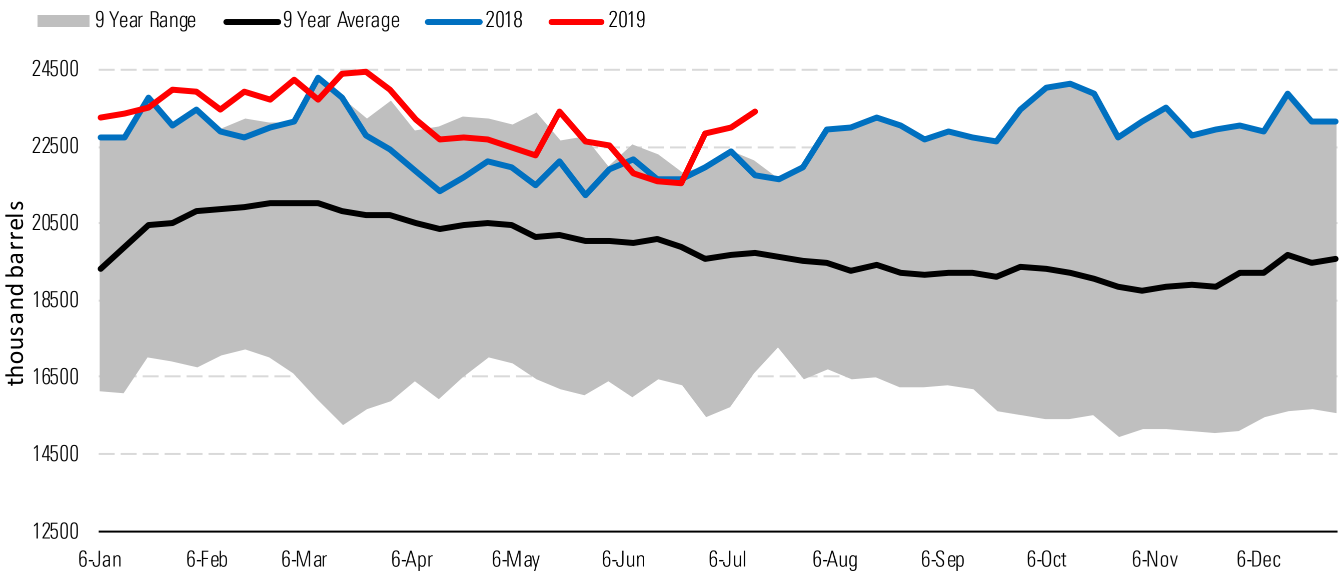
Exhibit 1 Corn and Ethanol Processing Margins



Source: CME Group ,U.S. Department of Agriculture, Morningstar Commodities.

Ethanol inventories are at record highs for July, with the EIA reporting total U.S. stocks of 23.4 million barrels for July 12, which is 18% above the seasonal average since records began in 2010 (Exhibit 2). At these levels, the market is oversupplied, and prices are under pressure. Yet ethanol plants continue to produce at or near capacity. Average weekly production between Jan. 1 and July 5, 2019, was 1.03 million barrels/day, according to the EIA, which is full operating capacity, according to June 2018 state of Nebraska plant data. Domestic ethanol demand for gasoline blending averaged considerably less at 0.93 mmb/d this year through mid-July, according to Renewable Fuels Association data. The balance of demand comes from exports that mostly go to Brazil, Canada, and Asia. Average monthly exports this year through May are 102 thousand barrels/day, which is 20% lower than the average 127 mb/d exported during the same period last year. With a volatile export market and high inventories, ethanol producers depend heavily on effective RFS mandates to stay in business.

Exhibit 2 Seasonal U.S. Ethanol Inventory

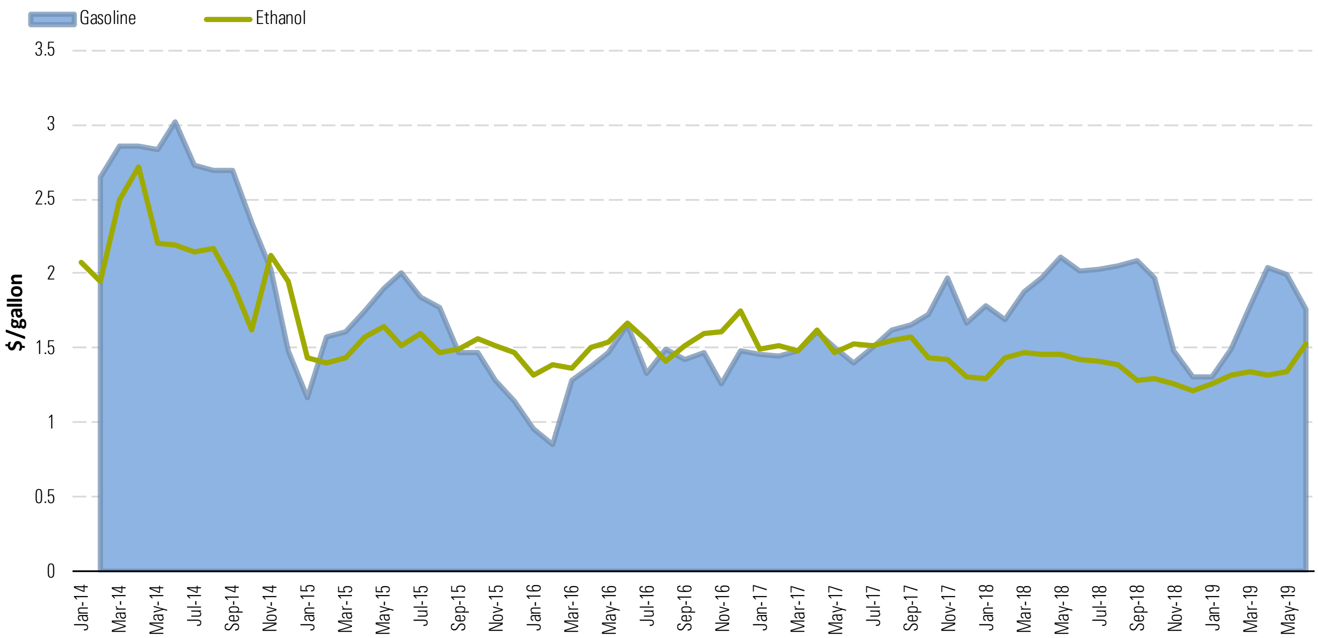


Source: EIA, Morningstar Commodities.

Blenders

Gasoline blenders make money from ethanol mandates in one of two ways: blending margins and RIN sales. Growing ethanol inventory in the wake of flat domestic demand and export headwinds has kept prices languishing well below gasoline since last summer. Exhibit 3 shows Chicago gasoline/ethanol blender margins between January 2014 and July 2019. The pretax wholesale gasoline price is the blue shaded area and the green line is the price of Chicago ethanol. When ethanol prices are lower than gasoline, blenders profit from the difference and have incentives to maximize ethanol content (up to the regulatory limit of 10% or potentially 15% for E15). Average gasoline prices in Chicago were $0.41/gallon above ethanol between September 2018 and June 2019, creating an incentive to maximize ethanol content for the past 10 months.

Exhibit 3 Chicago Gasoline and Ethanol Prices



Source: CME Group, Morningstar Commodities.

Blenders also profit from the sale of RINs. The accumulation and sale of RINs is a cryptic corner of the often-baffling renewable fuel market. Under RFS rules, refiners and importers are assigned obligations to blend renewables based on fuel sales. They must surrender equivalent RINs to fulfill that requirement. Trouble is, many independent refiners don't blend gasoline and ethanol because the task is typically performed further down the distribution chain to preserve product integrity. That means gasoline blenders collect a lot of RINs that refiners then have to buy from them in secondary markets to meet their RFS obligation. If there's a shortage of RINs to meet refiner obligations, prices can increase rapidly. When that happened at the end of 2017, they reached nearly $1/gallon, leaving refiners losing money on gasoline once they had purchased RINs. Last year's EPA refinery waivers ended the shortage and RIN prices have collapsed since to around $0.20/gallon today. So, while blenders are currently benefiting from low ethanol prices, their RIN profits have dried up in the past year.

Refiners

Refiners lose money as ethanol mandates increase. They surrender gasoline market share every time ethanol blend mandates increase or if more gas stations sell higher-blend grades, such as E15. Also, if domestic gasoline demand is flat and ethanol mandates increase, then RINs get scarce and more expensive. The actual impact on refiners of higher mandates varies with their footprint. Some, like Valero and Flint Hills Resources, are also large ethanol producers, so they are protected from the downside. Refiners along the Gulf Coast are also less concerned since they have access to gasoline export markets that don't require ethanol blends. East Coast refiners are insulated from demand concerns because the region is short gasoline and can absorb any surplus freed up by losses to ethanol. The West Coast is a more balanced refining market, producing more or less what it needs and exporting less. Refiners there are vulnerable to growing ethanol blends. The largest impact is in the Midwest, where refineries are landlocked and struggle to find new markets for excess product. The major ethanol producers are also in Midwest states and likely to invest more rapidly in distributing higher ethanol blends now that the E15 ban has been lifted. Generally, RIN costs have a greater impact on independent refiners that don't own blending operations, because they have to purchase RINs in secondary markets.

Outcomes

If the Trump administration limits refinery waivers this year this will anger the oil industry because the result will almost certainly be higher RIN costs. The current 15-billion-gallon ethanol target won't be met without increasing ethanol blends above 10% in gasoline, and in any case, refiners will scramble to obtain adequate RINs to meet their obligations. If waivers are approved for many refineries, the corn lobby and ethanol blenders will be up in arms about the administration undercutting the ethanol mandates. The year-round E15 rule change will be no consolation prize in the circumstances until more gas stations can sell the blend. Of the two competing lobbies, we're guessing farmers come first for electoral reasons because of their importance in the heartland. That means any refinery waivers will be limited. Expect some compromise moves to keep the lid on RIN prices to placate the oil industry. Longer term, the contest is only set to get tougher as both sides compete for a gasoline market expected to shrink longer term in the face of alternative fuels.

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