

The Truth About RINs

What are RINs?

A [RIN](#) (or Renewable Identification Number) is a 38-digit alphanumeric code assigned to a gallon of renewable fuel produced in, or imported into, the U.S. for the purpose of tracking compliance with the Renewable Fuel Standard (RFS). In the case of ethanol, the RIN remains attached to the renewable fuel until it is blended with gasoline. Blenders and refiners who purchase ethanol receive the associated RIN free of charge.

When the ethanol is blended with gasoline, the RIN is separated and becomes a tradeable compliance credit. Each year, obligated parties under the RFS (typically refiners/importers) turn RINs in to EPA to demonstrate compliance with their renewable volume obligations (RVOs).

If an obligated party blends *more* than its required volume of renewable fuel, it will have surplus RINs that may be sold to other parties or banked for compliance with a portion of the following year's RVO requirement. Conversely, if an obligated party blends *less* than its required volume, it may purchase RINs from other parties to offset the shortfall, or it may carry a compliance deficit forward to the next year.

Are merchant refiners required to *buy* RINs to comply with the RFS?

No. While some merchant refiners argue they are “required” to purchase RINs from other refiners or gasoline blenders, the truth is they could have invested in renewable fuel blending infrastructure. This would have allowed them to blend required volumes of renewable fuel and capture RINs free of charge. Following the passage of the expanded RFS in 2007, some refiners did in fact take steps to increase their renewable fuel blending capacity and capture RINs internally. Meanwhile, other refiners stubbornly refused to invest in biofuel blending capacity, choosing instead to purchase RINs from parties who blended more than required.

Are RINs an unrecoverable cost for refiners, or can they pass RIN costs on?

It is well understood that merchant refiners who do not blend ethanol **recoup their RIN costs** by slightly marking up their selling price of gasoline blendstock. Thus, RINs are not negatively affecting the financial performance of refining companies, both large and small.

- Petroleum industry consultants at **Turner, Mason & Company** [agree](#) that RINs are not affecting margins for refiners, stating, “*RFS compliance costs are substantially passed from refiners*” to wholesale purchasers of gasoline blendstock.
- Under former Administrator Scott Pruitt, the **Environmental Protection Agency** [concluded](#) that RINs are not negatively affecting profit margins for oil refiners like PES. According to EPA, “*...obligated parties, including small entities, are generally recovering the cost of acquiring the credits necessary for compliance with the RFS standards through higher sales prices of the petroleum products they sell.*”

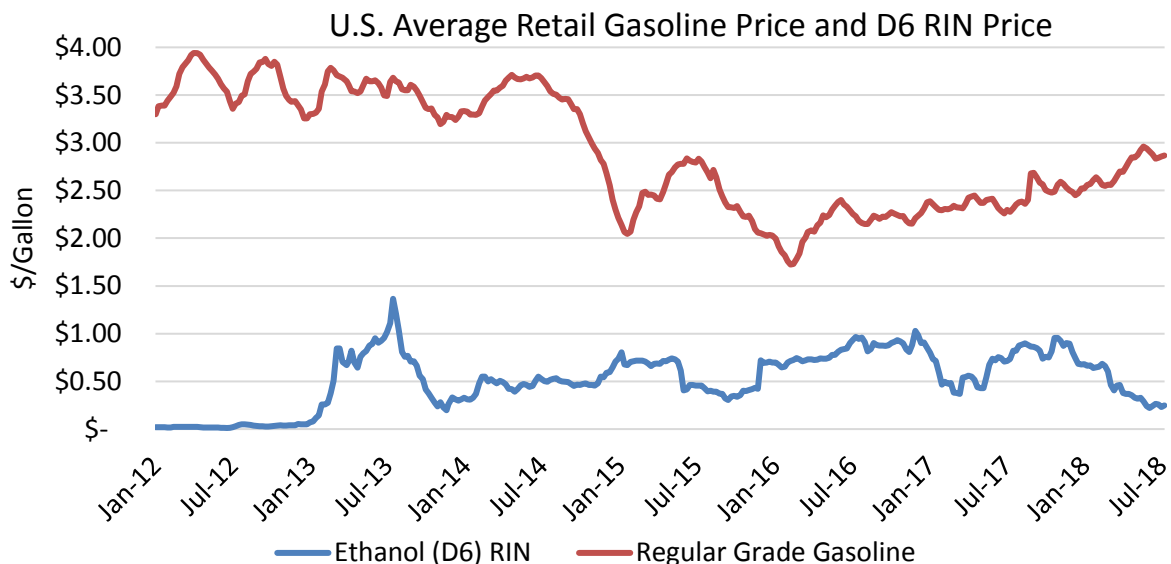
- Economists from **Harvard University**, **MIT**, and the **University of Michigan** also [determined](#) that refiners recover the cost of RINs, and thus there is no net impact on margins: “RIN prices were passed through one-for-one in the prices of bulk petroleum fuels.”
- Economists from **Iowa State University** [found](#) “...added refiner costs from complying with the RFS are passed on to blenders through higher gasoline prices. We show that high RIN prices...have no impact on profits of refiners, blenders, or integrated oil companies.”
- Refiner **Andeavor**, which will become the nation’s largest refining company following a planned merger with Marathon, has [stated](#) “RIN costs are passed through at the bulk finished product sales points and provide refiners with coverage of their exposure to them.”
- Even the **API** [agrees](#) that “...RIN costs are largely recovered by refineries, both large and small, through the increased value of gasoline and diesel fuel they supply to the market.”

How do RINs impact wholesale fuel prices?

As noted above, RIN costs are passed through from refiners to wholesale purchasers, leading to slightly higher wholesale prices for gasoline blendstock. However, RINs have the opposite effect on renewable fuels, **lowering the cost of ethanol** for blenders. When ethanol is blended with gasoline to create a finished fuel, the RIN-enabled discount on ethanol fully offsets the RIN cost passed through on gasoline by refiners. For fuel blends that contain more than 10% ethanol (such as E15 or E85), the RIN enables a sufficiently larger discount that is typically shared with consumers in the form of lower retail prices.

How do RINs impact retail fuel prices at the pump?

There is no evidence to support the notion that RINs push retail gas prices higher. In fact, RINs and retail E10 gas prices tend to be negatively correlated, with periods of high gas prices occurring during periods of low RIN prices and vice versa. According to an **Iowa State** [study](#), “...the net effect on the [retail] price of E10 of high RIN prices is zero: higher gasoline prices are offset by lower ethanol blending costs and the price of E10 remains constant.”



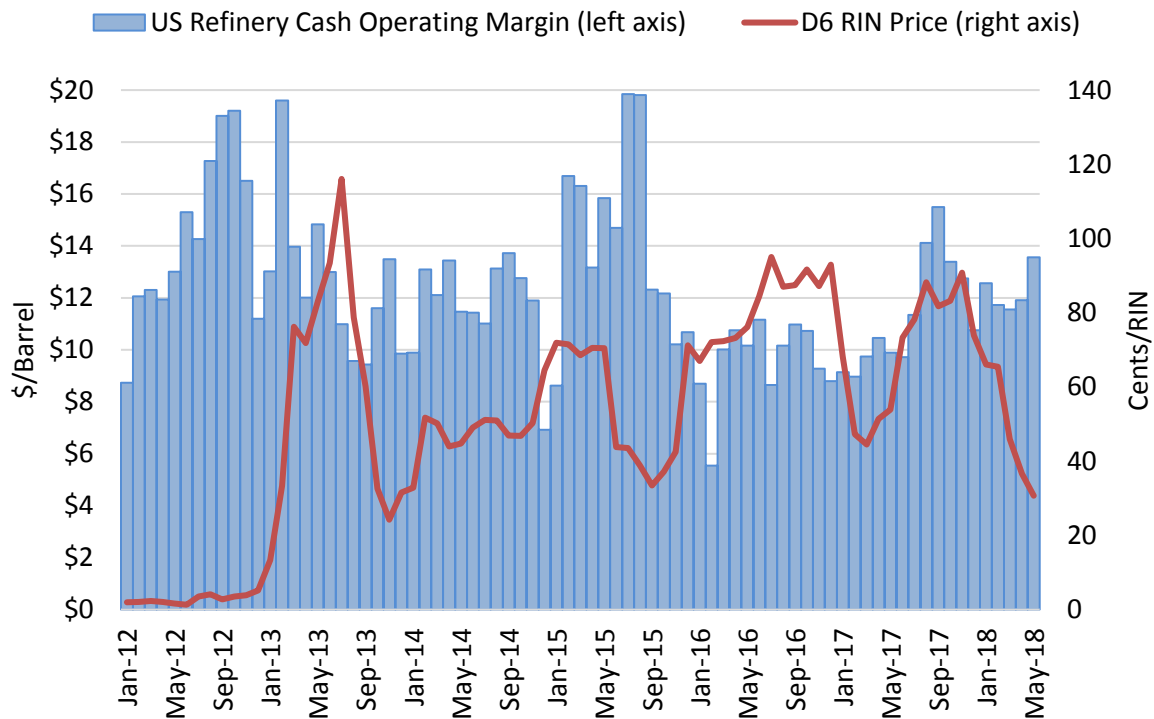
Source: OPIS and Energy Information Administration

How have refiner profit margins been affected by RINs?

Contrary to the rhetoric coming from some in the refining industry, there is **no statistical evidence to support the argument that higher RIN prices negatively affect refiner margins**. In fact, monthly average margins for East Coast refineries have shown a positive correlation with RIN prices in recent years (coefficient=0.71 since January 2017), meaning margins are highest when RIN prices are highest and vice versa (this lends support to the argument that RINs are embedded in the refinery “crack spread”).

- Analysts from **Wells Fargo Securities** recently released an [analysis](#) to subscribers that examined the potential impacts of RFS compliance costs on merchant refiners, finding that *“Most independent refiners now enjoy a net benefit from RINs, based on our analysis.”* The analysts also found that *“RINs costs are being passed along”* and *“investors should not spend much time and effort”* worrying about RINs.

U.S. Average Refinery Cash Operating Margin vs. RIN Prices



Source: Muse Stancil and OPIS

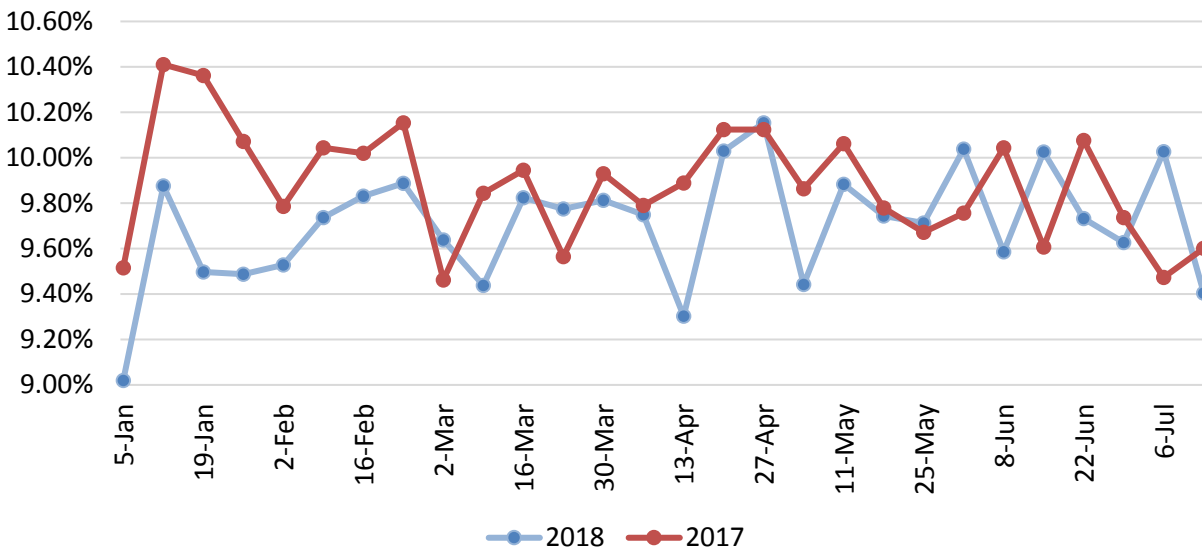
Did the wave of small refiner exemptions impact RIN stocks and RIN prices?

Absolutely. EPA’s recent issuance of approximately 50 small refinery compliance exemptions from 2016 and 2017 RFS requirements has ballooned RIN stocks to nearly 3.1 billion RINs. That is more than double the level of RIN stocks just two years ago. Consequently, RIN prices have plummeted from 95 cents in late November 2017 to just 25 cents today, decreasing the incentive for blenders and refiners to increase volumes of E15 and flex fuels like E85 to push past the so-called E10 “blend wall.”

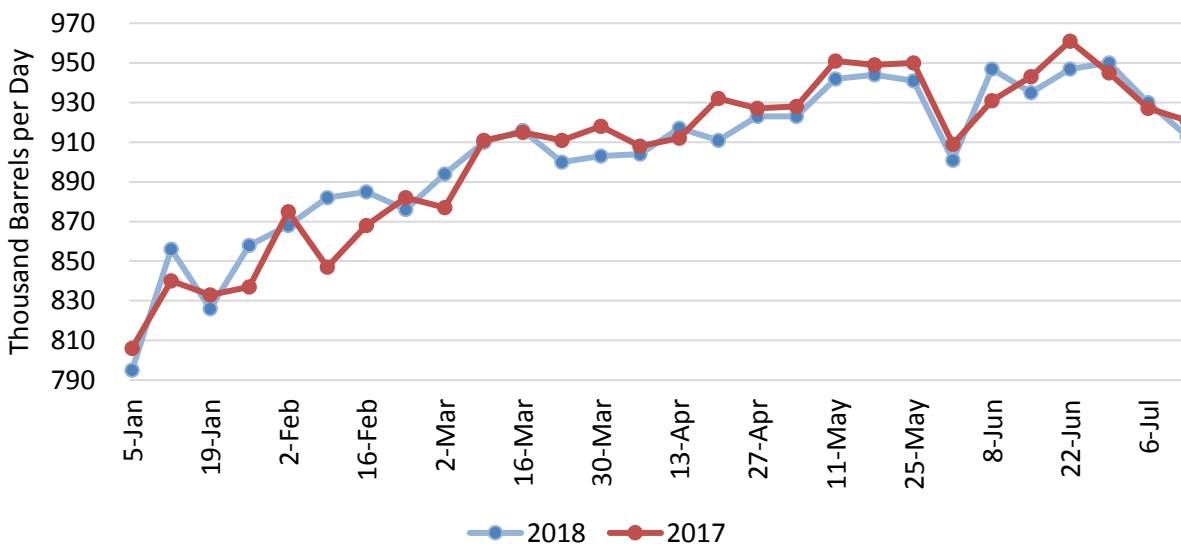
Are larger RIN stocks and lower prices reducing domestic demand for biofuels?

Yes, the escalation of RIN stocks and associated collapse of RIN prices has caused demand destruction in the ethanol market. Despite very favorable blending economics (i.e., ethanol is priced 70 cents per gallon below gasoline at the wholesale level), ethanol blending activity has slowed in 2018. Both the absolute volume of ethanol blended and ethanol's share of finished gasoline consumption are lower than year-ago levels. The 2018 weekly ethanol blend rate has been **below year-ago levels in 21 of 28 weeks so far**. Meanwhile absolute blending volumes have lagged year-ago volumes in 18 of 28 weeks, **including 16 of the past 20 weeks**.

Weekly Average Ethanol Blend Rate, 2018 vs. 2017



Weekly Ethanol Input by Refiners and Blenders, 2018 vs. 2017



Source: Energy Information Administration