

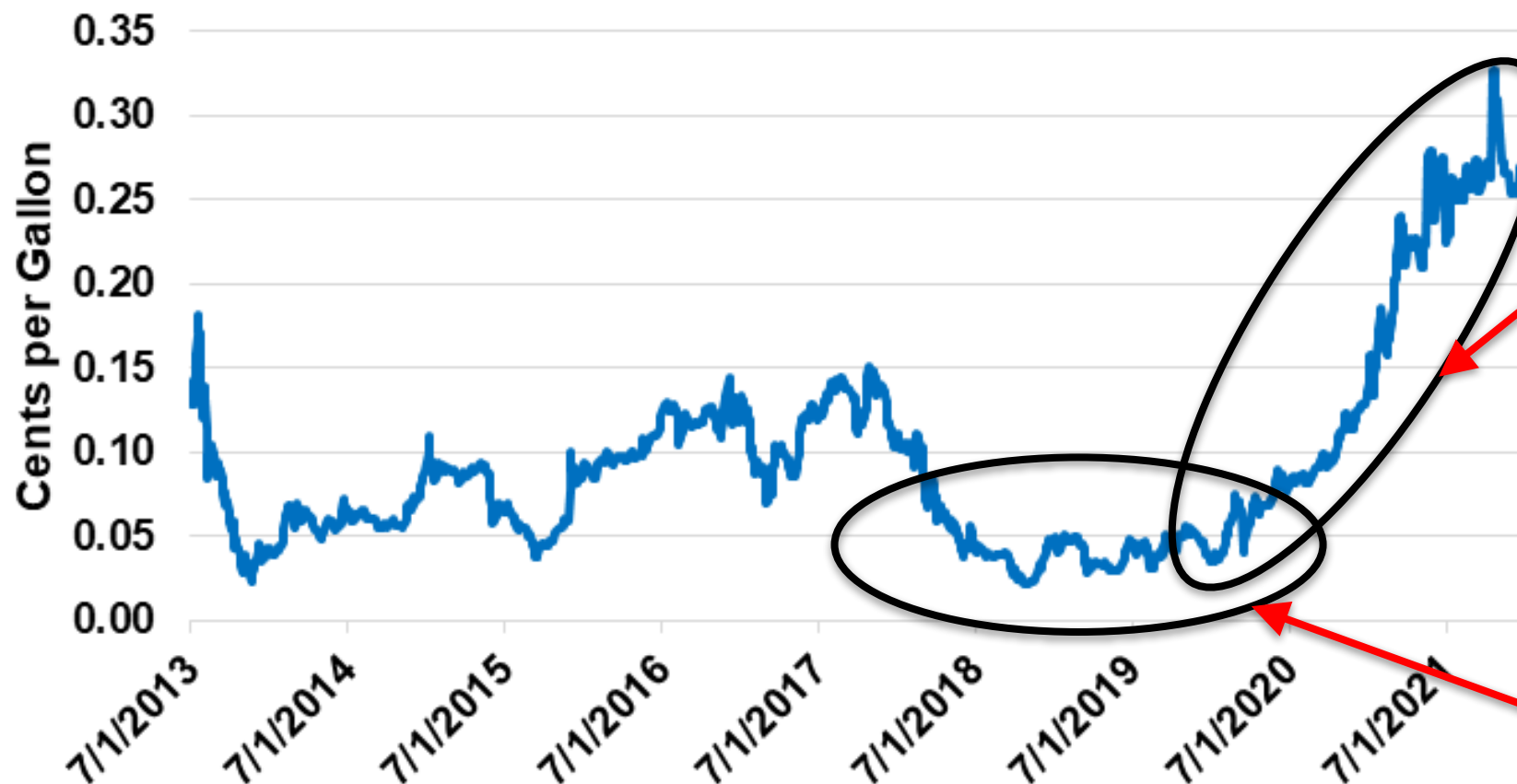
Chart of the Week 2022-07: **The Renewable Fuel Standard and Gasoline Prices**

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Washington, DC

Biofuel Mandates Are Adding to Gasoline Prices



RIN Cost per Gallon 7/1/2013 to 12/23/2021



Analysis Based on Daily CME, EIA, EPA, and EcoEngineers Data

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The cost of biofuel mandates (measured as credits under an EPA program - RINs) have been on the rise

Small Refinery Exemptions (SREs) helped keep RIN costs low.

Rising Crude Prices and Regulatory Mandates

Raising Gasoline Prices



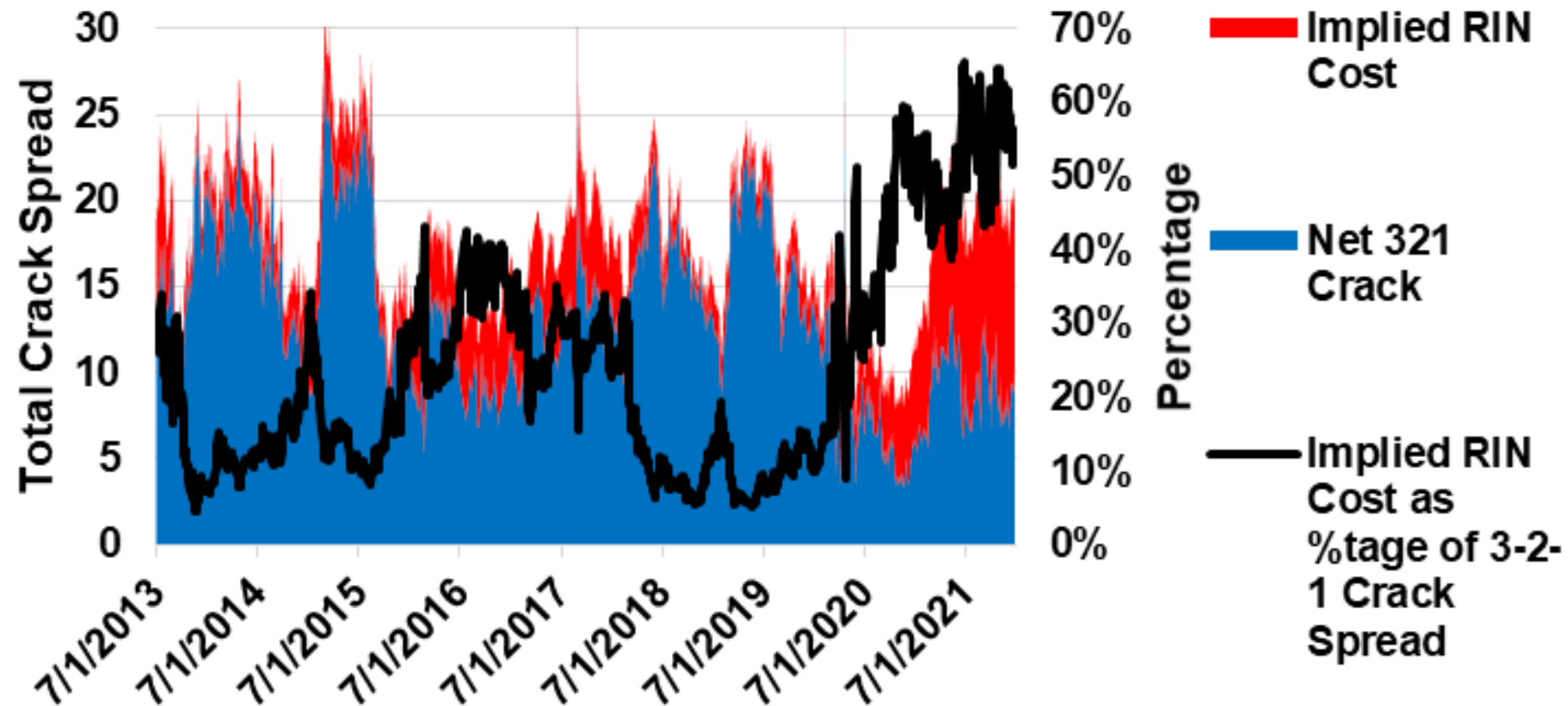
- Recent increases in gasoline prices in the United States are primarily driven by crude oil prices and refining costs. Although taxes and distribution costs play an important role, these costs have been relatively stable over the last year.
- "The Crack Spread" is defined as the value of petroleum products less the cost of the crude oil raw material; it serves as a benchmark proxy for the refinery gross margin. The so-called 3-2-1 Crack Spread assumes that 3 barrels of crude oil will yield 2 barrels of gasoline (xBOB) and 1 barrel of diesel.
- Under US law (RFS – Renewable Fuel Standard), refiners and importers must meet mandates to include specific volumes of biofuels in the production of gasoline. RINs (Renewable fuel Identification Numbers) are acquired and submitted for compliance.
- Both the cost of biofuels and the cost of compliance at higher mandates are adding to refiner costs, which are passed on to consumers.
- This slide deck is available at: <https://eprinc.org/chart-of-the-week/>
- For more information on this chart, please contact Lucian Pugliaresi (loup@eprinc.org) or Max Pyziur (maxp@eprinc.org).

Additional Slides

Biofuel Mandates Are Impacting Refiners' Margins



RIN Cost and Net 3-2-1 Crack Spread 7/1/2013 to 12/23/2021



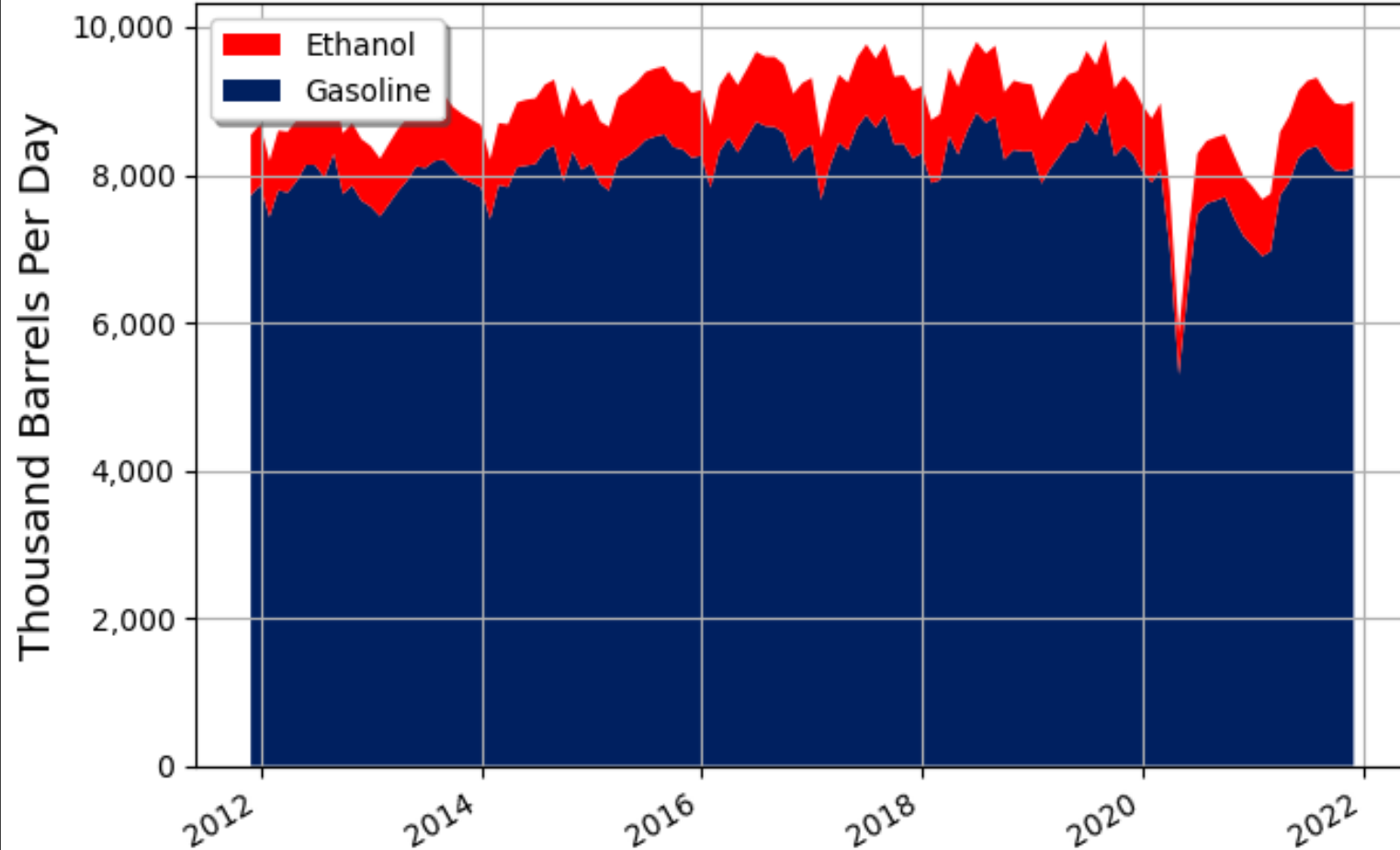
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Ethanol as a Percentage of Gasoline



Monthly U.S. Consumption - Gasoline and Fuel Ethanol:
11/30/2011 through 11/30/2021



Analysis based on EIA Data

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U.S. Annual Gasoline Ethanol Blending Average

2012	9.57%
2013	9.70%
2014	9.74%
2015	9.75%
2016	9.81%
2017	9.85%
2018	9.89%
2019	9.96%
2020	9.98%
2021	10.04%

EIA Data

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