Industry Compliance Costs Under the Renewable Fuel

Standard: Evidence from Compliance Credits

The Renewable Fuel Standard (RFS), which requires oil refineries to blend ethanol into do-

mestic fuel supplies, is a market-based policy that implements tradable compliance credits to

better equalize compliance costs across firms. We use variation in the prices of these credits to

retrieve reduced-form estimates of how the RFS impacts the values of refining firms. In addition to

fitting bivariate time series models to compliance credit and firm values, we use unanticipated

mid-compliance-year regulatory announcements that changed mandated biofuel blending

volumes to identify event study models. Previous evidence on cost pass-through suggests that the

RFS should have little impact on refining firms. In contrast, we find a significant negative oil

refinery stock price response to shocks in RFS compliance credit values. This negative effect is

limited to refining firms with large market capitalizations and integrated downstream operations.

This evidence discredits a widespread critique of the RFS claiming that integrated refiners are

able to draw profits from merchant refiners that lack downstream blending and retail operations.

Key Words: Biofuels, Ethanol, Refinery, Renewable Fuel Standard, Renewable Identification Numbers

JEL Classification: H23; L71; Q35; Q41; Q42; Q48