

# Gasoline Prices Spring Higher as Trump Ponders Deregulation

## Gas cracks jump 75% overnight in response to summer spec.

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### Data Sources Used in This Publication

- ▶ Argus Media
- ▶ CME Group
- ▶ Energy Information Administration

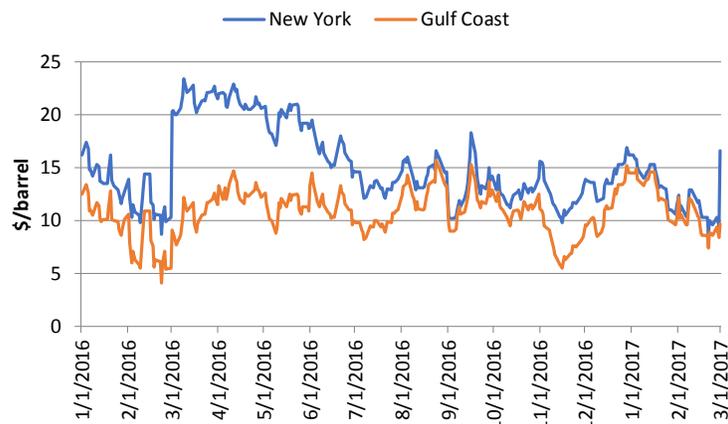
To discover more about the data sources used, [Click Here](#)

### Seasonal Hike

For the new Trump administration looking to unwind federal regulations, U.S. fuel regulations represent a fat target. The myriad rules surrounding the manufacture of gasoline is a case in point, where regulation can increase costs in an apparently arbitrary fashion. A good example is the spring change to gasoline specifications. This week the CME Nymex New York gas crack—a measure of refiner margin for processing West Texas Intermediate crude into gasoline—jumped 75% overnight, more than \$7/barrel to \$16.65/barrel on March 1, as a result of the changeover to summer gasoline specifications. Domestic winter-grade gasoline has less stringent anti-emission requirements than summer fuel. The switch to more stringent summer specification raises blending costs and increases prices for gasoline delivered after April 1. This note looks at gasoline blending regulations affecting U.S. refiners and prospects for relief from the Trump administration.

Gas cracks in New York, based on the spread between Nymex unleaded and WTI crude, and at the Gulf Coast, based on Gulf Coast unleaded and LLS crude, fell about 42% in January and February as stockpiles increased during the low-demand winter months but jumped on March 1 as the April gasoline contract became prompt (Exhibit 1). This pattern matches that of 2016, when lower prices in January and February were followed by a sharp increase in March. The New York gas crack reacts strongly to the seasonal change since the Northeast region is a net importer of gasoline and most fuel in the region is blended for domestic consumption to meet tighter specifications. The seasonal impact is less marked at the Gulf Coast, where larger export volumes are not subject to domestic emission regulations.

**Exhibit 1** Gasoline Cracks



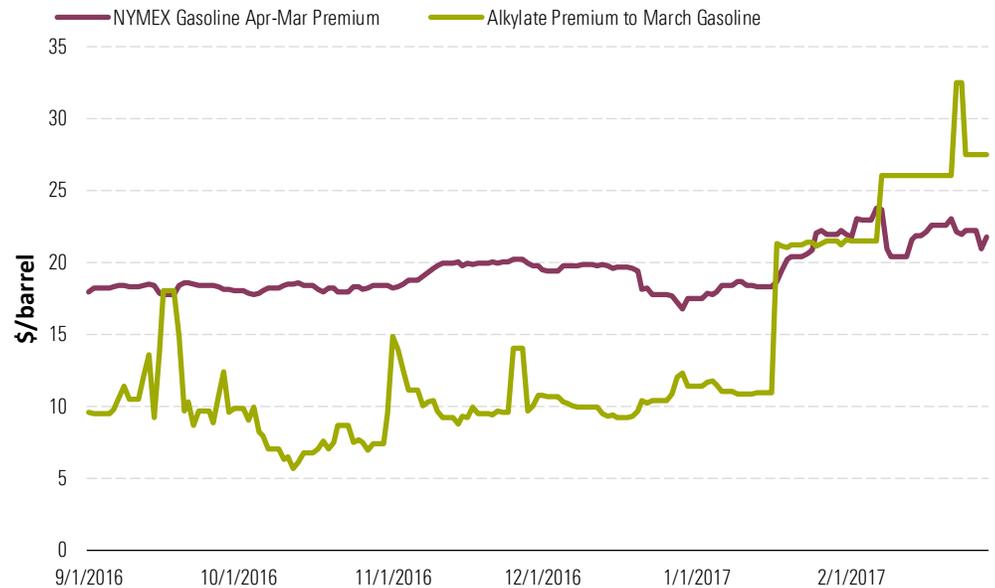
### **Blending Clean Air**

The Clean Air Act Amendments of 1990 mandated reductions in toxic emissions. A principal target of the legislation was reduced emissions from gasoline of volatile organic compounds, nitrogen oxide, and carbon monoxide. The principal indicator of gasoline volatility is Reid vapor pressure, or RVP, a level measured in pounds per square inch. The higher a gasoline's RVP, the more quickly it evaporates, releasing emissions into the atmosphere. Federal regulations limit gasoline RVP to maximum levels at different times of the year based on regional climate. RVP mandates generally switch from winter to summer levels on April 1, requiring refiners to lower RVP levels in their blends for delivery during March to make sure the tighter spec is available throughout the distribution system by April. The spring spec changeover is more complicated and expensive for refiners because product has to be upgraded to meet the higher standard. The fall transition to winter specs is easier as the standard is lowered.

During winter months, gasoline blends include components with higher RVP levels such as the natural gas liquid normal butane. Winter-grade gasoline in the Northeast United States, for example, generally has an RVP level between 13.5 and 15. Normal butane is generally cheaper than gasoline, so refiners blend as much butane as they can into gasoline in order to pocket the price difference. But butane has a high RVP level of about 50, so although it can be used as a blend component in the winter, it does not work as well in the summer when lower RVP mandates vary from 9.0 psi in colder Northern regions to 7.0 in the South.

### **Alkylate Premium**

Lowering the RVP level of summer-grade gasoline means replacing components like butane with more-expensive alternatives that include reformate and alkylate. Reformate is produced from heavy naphtha in refinery reformer units. Alkylate is produced in reactor units using catalysts and isobutane, propylene, and butylene feedstock. Because of changes in the quality slate of U.S. domestic crudes resulting in a preponderance of lighter grades that produce more light naphtha and less heavy naphtha, reformate has become more expensive to produce than alkylate, which is now the preferred blend stock for summer-grade gasoline. Alkylate has a low 4.0 RVP as well as a high octane content. Prices for alkylate increase during the runup to the spring seasonal changeover. Exhibit 2 shows the spread between New York alkylate and reformulated gasoline for delivery in March (green line). The higher cost of summer gasoline is reflected in a wide premium between prices for March and April delivery that averaged 19.5 cents/gallon during January 2017 and 22 cents/gallon in February (purple line).

**Exhibit 2** Spring Gasoline and Alkylate Premiums

Source: CME Group, Argus Media

**RIN Obligation**

Gasoline blending is further complicated by renewable fuel standard, or RFS, regulations introduced in 2007 that require increasing quantities of biofuels to be added to gasoline and diesel. The RFS mandate is designed to increase the use of renewable fuels to reduce dependence on fossil fuels. The vast majority of renewable fuel blended with gasoline is ethanol—a form of alcohol—derived from corn in the U.S. The RFS rules specify how much ethanol and other biofuels must be blended with gasoline and diesel, based on annual quotas. These quotas are currently assigned to refiners and importers in the form of renewable volume obligations, or RVOs, based on estimates of fuels manufactured or imported. Obligated parties receive unique renewable identification numbers, or RINs, when, for example, they blend ethanol with gasoline. RINs are surrendered to meet annual RVOs. Refiners and importers that do not blend all or part of their finished gasoline obligation can purchase RINs from blenders that actually carry out blending or brokers that trade RIN credits. The current RFS standard targets a close to 10% blend of ethanol with every gallon of gasoline. Since ethanol is not typically manufactured by refiners and has characteristics that prevent it being transported by pipeline once blended with gasoline, it is delivered separately to distribution terminals, usually by rail or truck. On its own, ethanol has a lower RVP than gasoline, but when blended with gasoline, it increases the overall level. RFS waiver rules allow 10% ethanol blends (E10) to have a 1 psi higher RVP limit during the summer. RFS regulations have limited impact on RVP levels but do affect refiner gasoline blend costs, especially when RIN shortages result in high prices for credits.

The nature of the RVOs, including unwanted costs associated with purchasing RINs, are the subject of current speculation regarding the Trump administration's plans to reform RFS legislation. This week, the price of traded RINs dropped over 30% in one day based on a rumored Trump executive order that was later denied by the White House. Market expectations are that refiner costs will be reduced by any change in the regulation. However, the price for this may be an increase in the volume of ethanol that can be blended with gasoline, to as much as 15%, or E15. This would reduce gasoline demand by 5% at a stroke of the pen, and while that would please the corn farmer lobby, it will face strong opposition from refiners.

### **Prospects for Deregulation**

RVP limits and ethanol blend obligations are just two of the many federal regulations challenging refiners. New restrictions on gasoline sulfur content known as Tier 3 were just introduced in January 2017, requiring changes to gasoline manufacture and blending. Also, corporate average fuel economy standards mandate that auto manufacturers increase engine efficiency to reduce gasoline consumption, requiring refiners to produce more high-octane premium gasoline for turbo engines. State regulations such as those mandated by the California Air Resources Board are an additional burden. Under the Trump administration, the federal regulations governing gasoline blends are candidates for revision or repeal. The first on the radar this year is the RFS. It remains to be seen whether and when reforms will actually come into effect. We will detail the impact of such regulatory changes on refiners for you as they occur. ■■

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