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Diesel Price Outlook for 2019

Introduction

Anyone filling up their gas tanks during the last quarter of 2018 probably noticed the gasoline price going down. Diesel prices also dropped some but not nearly as much as the gas price. Gasoline prices dropped below $2 a gallon in many areas of the country. An important question for farmers and consumers going into 2019 is the price they can expect to pay for diesel and gasoline. This article examines that question.

Background

Figure 1 shows historical oil, highway diesel, and gasoline prices for the last 10 years. All of these data come from the U.S. Energy Information Administration (EIA) (https://www.eia.gov). Figure 2 shows historical oil, highway diesel, and gasoline prices for the last 5 years. The current set of prices is right around both the 5 and 10 year price trend lines (not shown). The trend lines of prices for both 5 years and 10 years trend slightly downward. For example, diesel prices have decreased by an average of $0.04 per year over the last 10 years. The ability of the U.S. to increase domestic oil production has helped to increase supply (by shifting the supply curve) and thus lower prices.

Analysis and Results

As one might expect, the price of both diesel and gasoline is highly dependent upon the oil price. The correlation of oil to gas and diesel is 0.972 and 0.969 respectively. A formal regression model was developed and the results are shown in Figure 3. This model is based on weekly price data from the EIA for the last 5 years.

It turns out that lagging the diesel price by 3 weeks produces a slightly stronger model. That is, the price of oil today best predicts the price of diesel 3 weeks from now. The equations from the model are:

Gasoline price = 1.225 + (0.02303 * oil price)
Diesel price = 1.334 = (0.02633 * oil price)

That is, a $10 increase in the price of oil results in a $0.26 increase in the price of diesel fuel.

Price Predictions for 2018

We may have already seen our yearly low prices for 2019, especially for gasoline. Oil prices are forecast to rise slightly throughout the year as shown in Figure 4. An oil price of $60 forecasts to a price of $2.90 for diesel so diesel prices might not rise very much. However, a $60 oil price results in a $2.60 gasoline price, well above current levels. In addition, gasoline shows strong seasonality with the winter price well below the summer price. Thus with the oil price rising over the year and the winter gasoline seasonality ending, prices at the gas pump will likely be higher for most consumers during 2019. Farmers too should probably examine buying diesel fuel now. Diesel seasonality is not as strong as gasoline but diesel prices do tend to rise during the spring. A future AgManager publication will examine diesel and gas seasonality.

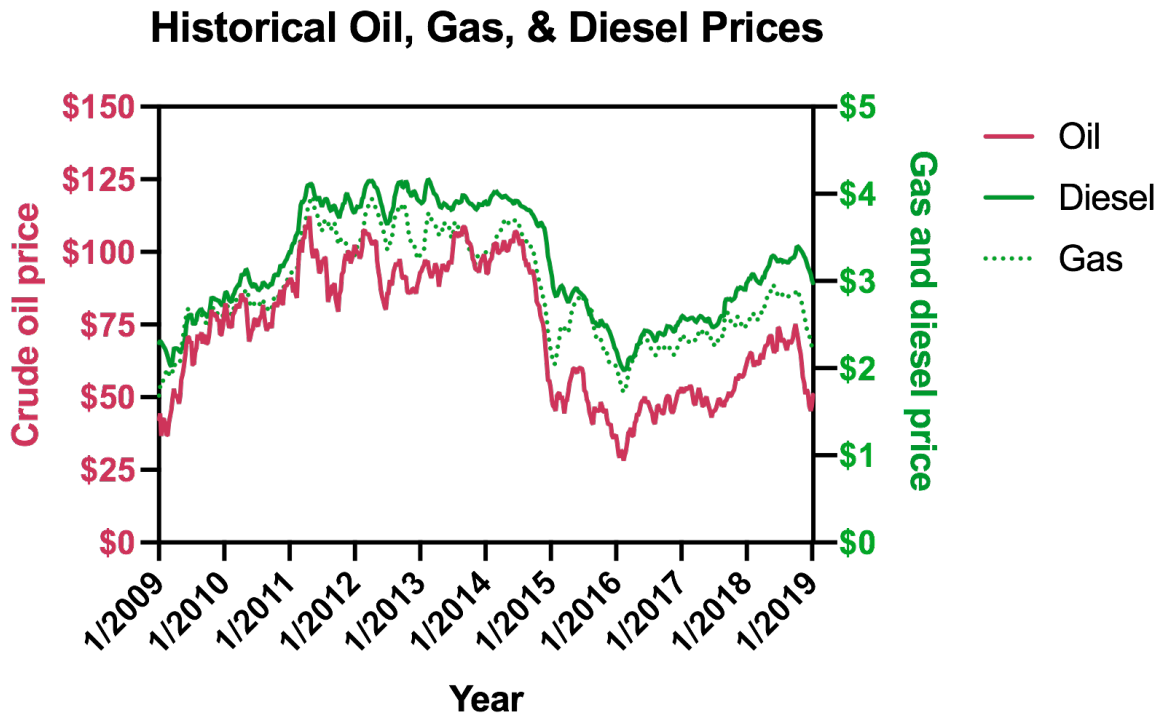

Figure 1. 10-Year Historical Oil, Gas, and Diesel Prices

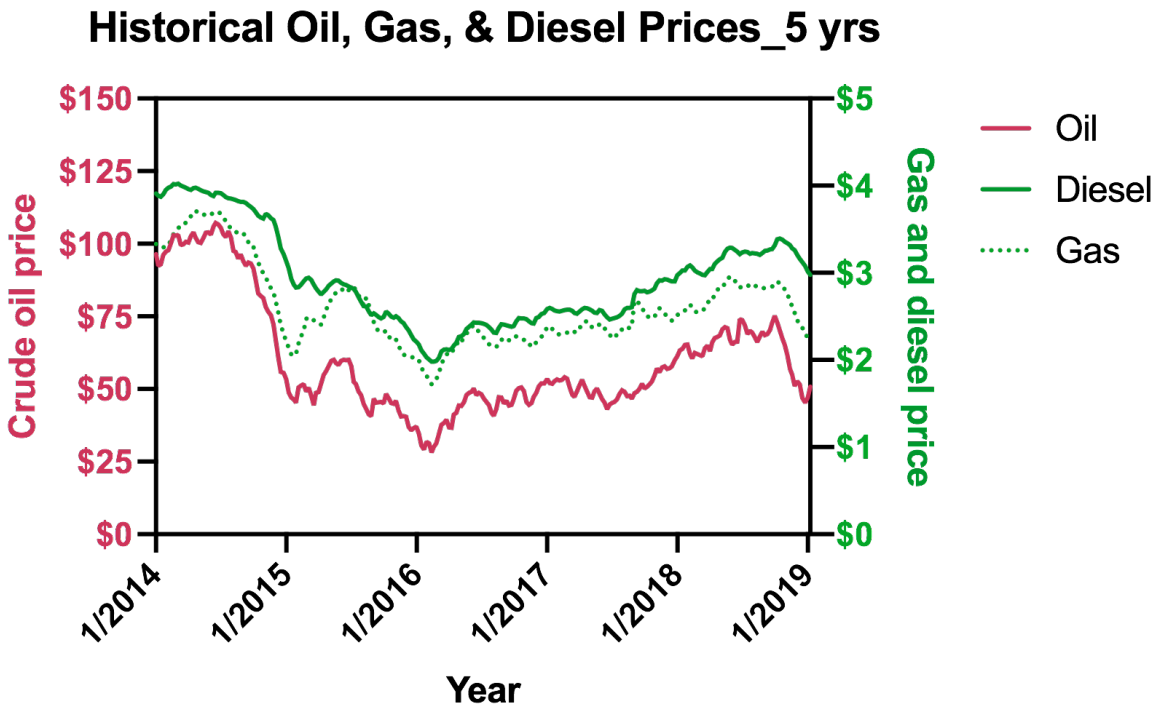

Figure 2. 5-Year Historical Oil, Gas, and Diesel Prices

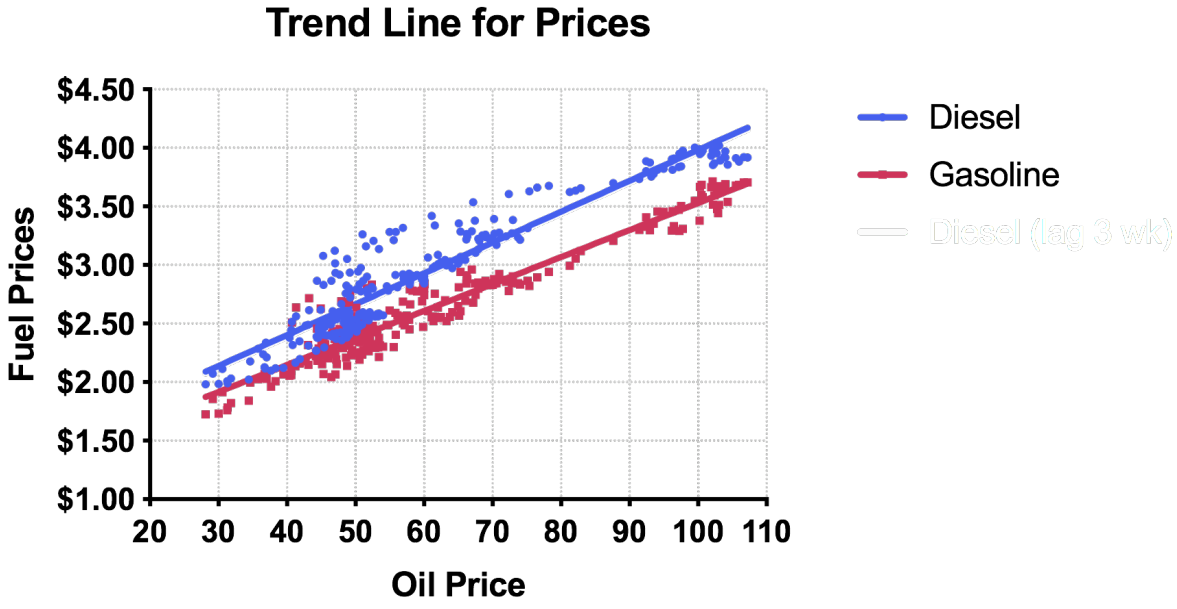

Figure 3. Regression of Diesel and Gasoline Prices Against Oil Price

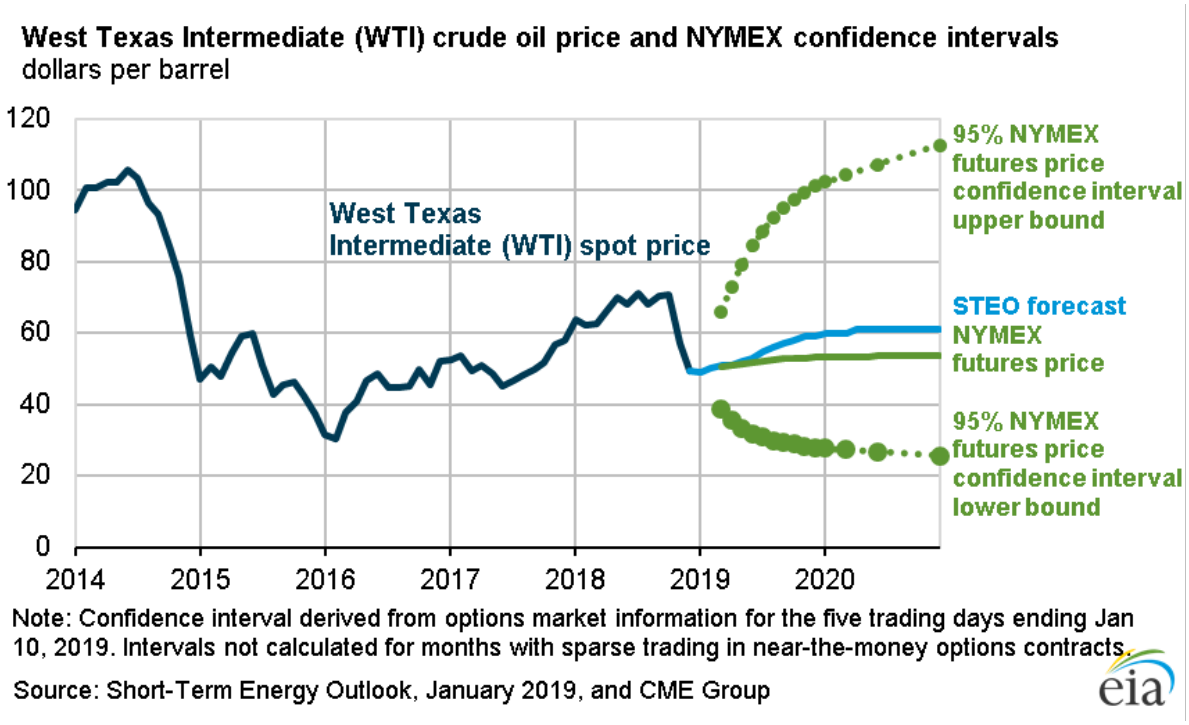

Figure 4. EIA Predicted Future Oil Prices

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