

Chinese Oil Demand and World Oil Price

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(1) Overview

Crude oil price hit the record high again and again. In January 3, 2008, the front-month crude futures contract even hit a record \$100.09/bbl in the intraday trade on the New York Mercantile Exchange. Although the manipulation of speculators should be the main driver for this top price, the significant increase for world oil demand actually plays an even more important role. Since Chinese oil demand is the major sources of world oil demand growth, this paper would like to investigate the development of Chinese oil demand and find its possible future trend. It is believed that the oil price trend can be better captured after we trace this oil demand movement.

(2) Methods

We tackle this issue step by step as below:

1. Find detailed regional oil consumption data form China Energy Statistical Year Book.
2. Rearrange the data and draw some Tables and Figures.
3. Picture the development of Chinese oil demand for different provisions and different sectors.
4. Implementing the parametric and nonparametric quantile regression method.

(3)Results

The GDP growth brings different impacts for different kinds of oil products. There are very different curve patterns for diesel, fuel oil and gasoline. Higher GDP growth rate results in more diesel and gasoline consumption, while less fuel oil consumption. The top quantile for the diesel and gasoline consumption indicates the trend of more motor vehicle population in China.

(4)Conclusions

By implementing the parametric and nonparametric quantile regression method, we find cubic form relationship between oil consumption growth rate and regional GDP growth rate. Moreover, the higher GDP growth rate results in more diesel and gasoline consumption, while less fuel oil consumption in China, which indicating the increasing consumption of transportation fuels verifies the trend of more motor vehicle population in China. This trend is more likely to push up the diesel and gasoline price in the world.