

THE ANALYSIS OF NATIONAL AND INTERNATIONAL PRICING OF GASOLINE

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Abstract: The article deals with the issue of pricing in the motor fuel market in a series of countries. It was concluded, that the immediate decrease in excise taxes in the Russian Federation since June 2018 did not change the situation in general. Oil refineries and petrol filling stations remain a weak spot, and the developed compensation mechanisms within the framework of the tax maneuver are not so perfect, and do not guarantee their financial stability in the future. The gradual movement towards liberalization of the Chinese fuel market was also noted. However, up to date, the country maintains the state regulation of retail prices for gasoline. As in Russia, this mechanism periodically fails, that is manifested in losses for oil refineries and petrol filling stations.

Key words: pricing, motor gasoline, gasoline price, motor fuel market.

1 Introduction

One of the urgent issues in the oil refining industry remains the cost of oil products in the motor fuel market. The development of road transport infrastructure, the increase in the length of roads, the expansion in the number of motor vehicles among the population, undoubtedly leads to an increase in fuel consumption (Sharipov & Isavnin, 2018). In this connection, the impact of fuel prices on all spheres of society is quite significant.

The increase of excise taxes and constant attempts of administrative intervention in pricing contribute to a direct rise in fuel prices. Free pricing in the motor fuel market the most often exists in developed countries, with high per capita incomes. These countries are usually the net importers of hydrocarbons. In such markets, the final price of gasoline is formed taking into account three main categories: the cost of oil, the costs of refining and sales, as well as the indirect taxes - excise taxes and VAT (Coglianese, 2017). And as a result, prices change quite quickly along with oil quotes.

2 Materials and Methods

According to the data of GlobalPetrolPrices, the retail price of gasoline in Russia as of September 17, 2018 was \$ 0.68 per liter. Despite the fact, that Russian fuel prices are higher than those of most net exporters, Russia ranks 28th among 165 countries and belongs to the group of states with the lowest cost of gasoline.

The relatively low fuel price in net exporters can be explained by the fact, that in most cases the state-owned vertically integrated oil companies dominate in the oil sector of such countries. This greatly simplifies the task of subsidizing of final gasoline prices. According to the research of Italian oil and gas company ENI, in countries with the cheapest fuel, the share of national oil companies in the ownership structure of oil refineries ranges from 50 (Middle East) to 90% (Latin America) (Hussain, 2018; World Oil Review, 2018).

The level and structure of petrol prices are very different across the world. In the West, the main discrepancies are connected with the size of the fiscal burden, while the costs of oil acquisition, its refining, and selling of petroleum products are similar.

As a rule, economically developed and rich countries have higher prices, but the United States with low petrol prices is the exception. The taxes in European countries are up to 10 times higher, than in the United States, that results in almost a three-fold difference in retail prices. The conditions, formed in the USA, are intended to the stimulation of the use of vehicles, that is of paramount importance for the highly mobile population in a large country (Baumeister & Kilian, 2016). In Europe, the regulation is aimed at minimization of the use of personal vehicles, and reducing the consumption of fossil fuels, while the high gasoline prices encourage the automobilists to choose hybrids and electric cars.

According to the statistical data of the independent Energy Information Administration, or EIA, in the United States, the share of taxes in the final price of gasoline is relatively low, and amounted to 12–20% (Outlook, 2010). It is also worth noting, that the petrol filling stations in most states are exempt from sales tax, and the share of processing and retail costs is small.

As mentioned earlier, the size and relative dynamics of retail prices are significantly affected by excise tax, the value of which is fixed, and does not depend on the cost of gasoline or other factors. In the USA, the excise tax is low. Today it is \$ 0.082 per liter at the federal level, and 0.065 on average for the states. For comparison, in Germany, the excise tax is 5 times higher, than in the United States, and is equal to 0.74 dollars/liter (0.65 euros/liter).

Another difference between the tax systems of the above two countries is that Germany also charges VAT at a rate of 19%. As a result, the share of taxes in the price of German gasoline in 2017 amounted to 64%, and this is generally typical for all developed Europe.

The IEA together with Thomson Reuters in their publication noted the similarity of gasoline prices in Russia and the United States. For many years, this fact has caused a fair bewilderment among citizens; moreover, the share of taxes in the Russian Federation is much higher - 36% against 19%. However, the tax accounting methodology in Russia omits the oil refining subsidies, due to which their actual share in the price of fuel is much lower.

International Energy Agency, or IEA, presented data on the average retail prices of gasoline, and the tax component, for a number of countries.

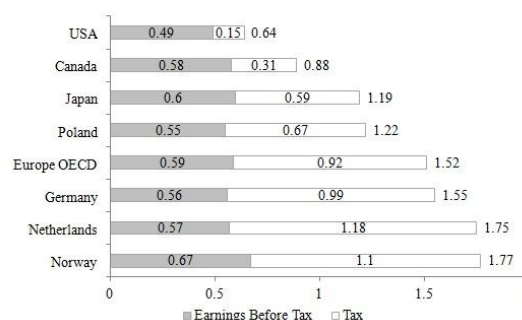


Figure 1. Average retail prices for gasoline and tax component on a country-by-country basis in 2017, USD/L

As it can be seen, the retail gasoline prices in developed countries are substantially different. The reason was the discrepancy in the level of taxation of final consumption. The spread of tax burden in the price of gasoline in 2017 amounted to 0.1–1.2 dollars/liter.

The analysts of VYGON Consulting, having conducted a large-scale research, found that Saudi Arabia is one of the countries with heavy regulation of gasoline prices (Atalla, 2018). Petrol prices, set by the government, for a long time were the lowest in the world, and they did not depend on oil prices. Since 1975, the demand for gasoline in the country has been growing on average by 6% per year, while GDP increases by a negligible 2.5%. This is due to the fact, that low prices discourage consumers to improve the energy efficiency and fuel economy. So, the residents of Riyadh, arriving on a hot day at a shopping center, prefer to leave a car with working air conditioner for all the duration of their stay in stores.

In January 2018, the government of Saudi Arabia raised fuel prices: from 0.2 to 0.37 dollars per liter for gasoline with an octane rating of 91, and from 0.24 to 0.57 dollars per liter for high-octane brands. The significant increase of the latter is due to

the fact, that the high-octane brands are consumed the most often. Thus, the country dropped to the 15th place in terms of fuel prices, and approached the United States. For comparison: in 2014, gas prices in the United States were 6 times higher; in 2018, the ratio decreased to 1.5 times.

The fall in oil prices in 2014 stimulated the authorities of Saudi Arabia to bring the issue of reduction of petrol prices subsidy program to the agenda. The attempts to launch the market mechanisms in retail are connected with the desire to reduce the budget load. According to the report of the International Monetary Fund, as of the beginning of 2016, the state budget has spent about 60 billion dollars a year on subsidies, that is equivalent to 10% of GDP (International Monetary Fund, 2018). The control of domestic fuel prices is cross-subsidized by the revenue from the export of oil and petroleum products in the framework of Saudi Aramco, a vertically integrated state monopoly.

Despite all the shortcomings of gasoline prices regulation, the new financial program of the government of Saudi Arabia provides for the transition to market pricing only since 2025.

The hybrid system is typical for the People's Republic of China, which occupies the 70th place among 165 countries in terms of fuel prices. The state retains the manual regulation of retail prices, that periodically leads to a decrease in the profitability of processing and distribution. There is no comprehensive compensatory mechanism on the part of the state, however, oil refineries and petrol filling stations receive targeted support. And the country did not come to this immediately.

The path to the market pricing has been stretched since 1998. Since then, many reforms have been carried out, such as the reorganization of China's largest oil and gas company CNPC, and the integrated energy and chemical company Sinopec, the establishment of a "reference retail price", and the introduction of adjustments for the foreign market prices.

Today, China is testing the effectiveness of the mechanism of promptly adjustment of the retail gasoline price, in order to maintain its stability. The "reference retail price" formula consists of refining costs, fair retail margins (within $\pm 4\%$), transportation costs, as well as the adjustments for world oil prices.

The adjustment of gasoline price occurs if the change in the quotations of crude oil in the world market leads to an increase or a decrease in the cost of 1 ton of petroleum products in the domestic market by more than 50 yuan (about \$ 7.27), given that such a situation is observed for 10 working days. This principle of adjustment of retail price ceiling has been applied since March 2013. Such grades of oil as Brent, Dubai Crude and Cinta are used for monitoring.

In general, the mechanism of manual real-time regulation of gasoline prices in China is far from perfect and periodically fails, that is manifested in losses for oil refineries and petrol filling stations. Further adjustment of the mechanism is expected with a gradual movement towards liberalization of the fuel market.

In May 2018, there was a disparity in the Russian fuel market: wholesale prices exceeded retail prices for the first time. The direct loss of petrol filling stations, taking into account the costs of logistics and sales, reached 3.6 rubles per liter for AI-92. Due to the next increase in oil prices, while the ruble was falling, the factories could not keep wholesale prices at the required level, giving a serious discount since the end of 2017, from 3 to 7 rubles/liter, in order to maintain the retail profitability.

3 Summary

Considered situation has shown the advantages and disadvantages of the current model of fuel price regulation. The control of local prices is the tangible benefit for consumers. However, the oil refineries and petrol filling stations reel from the negative consequences of such price regulation. That is actually considered as a major disadvantage.

The public reacted negatively to the growth of gasoline prices by several rubles per month. To stabilize the prices, the Russian government decided to reduce the excise taxes since June 1, 2018 by 3 thousand rubles per ton of fuel (previously it was supposed to increase by 700 rubles per ton since July 1). This resulted in the immediate improvement of the economy of petrol filling stations and partially of oil refineries.

Ultimately, the taken measures stabilized the situation in the fuel market. However, the government decision of the change of excise tax since January 1, 2019 by 3.7 thousand rubles per ton, and VAT rates from 18 to 20% retains the risks of a recurrence of situation, which happened in April-May 2018. At the same time, the government assures that the increase in excise taxes will not lead to the increase in retail gas prices, since the tax maneuver will be completed at the same time. The tax maneuver provides for lowering of customs duties, increase of MET, and introduction of negative excise taxes for oil refineries (Russian newspaper Kommersant, 2018; Kang, 2019). In case of insufficiency of the above measures, the temporary export duty on oil and oil products will be introduced.

4 Conclusions

Thus, the issue of pricing in the motor fuel market is one of the primary issues for the economy of all countries. Retail prices are the object of increased attention on the part of regulators, because they are socially important.

The solution to the problem of pricing does not have a reference point, because the issue of pricing directly depends on many factors. The key of them are the following: oil production, transportation and refining at oil refineries, retail distribution of the obtained oil products through the network of petrol filling stations, and the tax component - the main factor, influencing the dynamics of prices.

There is no universal formula for the assessment of gasoline prices. For this reason, people react to any increase in price as "an unreasonable price increase" or "price collusion of players", but not as an increase, driven by the market or economy.

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