

## DOMESTIC PRICES FOR MOTOR GASOLINE. IS IT PERMISSIBLE TO INCREASE THEM?

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*Over the first few months of 2015, Russian domestic ruble-denominated retail and wholesale prices for motor gasoline have stayed below their level that would have been achieved, should the law of one price (LOP) with the foreign market be applied to this situation. The main factors behind this phenomenon may be the rigidity of Russia's domestic prices, infrastructural or regulatory constraints on commerce, and significant alterations in the export price structure. In view of the current situation, we can speak of a probable increase of domestic motor gasoline prices in the nearest future.*

The upward movement of prices for motor fuel is an important socioeconomic indicator, alongside CPI and producer price growth. Motor fuel prices determine transport costs in industry, agricultural production costs, the prices of goods and services based on the direct use of hydrocarbons as raw materials; in other words, domestic fuel prices strongly influence the value of nearly all goods and services across a national economy. The marked fluctuations displayed by Russia's terms of trade (TOT)<sup>1</sup> in late 2014 and early 2015, which were manifest primarily in the movement of USD-denominated world prices for oil, the government's tax maneuver (a reduced USD-denominated export duty on oil and petroleum products coupled with a raised ruble-denominated rate of mineral resources extraction tax (MRET)), followed by sharp changes in the ruble's exchange rate against major world currencies, gave rise to serious concerns (shared by the population, producers and the government alike) as to the future movement of ruble-denominated prices for fuel and its supplies on the domestic market<sup>2</sup>. Thus, in particular, a discussion is currently underway with regard to the realistic prospects, for 2015, of a drop on 2014 in motor gasoline production in Russia. Among the reasons for this state of affairs, there are the shrinking consumer demand, problems with lending (the freezing of the oil refinery industry modernization program), and the lower oil production margin as a result of the government's tax maneuver. At the same time, oftentimes no answer can be given to the naive question: 'Why don't domestic prices for motor gasoline decline, if world prices of oil have plunged?'

In simple microeconomic models, where the realization of the law of one price for tradable goods is implic-

it, any change in prices on world markets is almost immediately reflected by a similar change in the framework of an open small-sized economy, with due regard for the national currency's foreign exchange rate. In other words, the law of one price for tradable goods implies that the level of domestic prices for Russian-made exported items should accurately enough correspond to the level of world prices for similar items, less transport and foreign trade cost; while prices for imports should be pegged to the relevant world prices, plus transport and foreign trade costs. However, in a real-life setting, the law of one price oftentimes does not apply, either in *static or dynamic* terms; as a rule, this happens when markets operate at different competition rates, when different intermediary surcharge fees are applied to final product prices, or consumer discrimination by producers (market segmentation). Moreover, producer prices, as a rule, are characterized by a certain rigidity caused by competition specificities, information asymmetry, menu costs, or adaptive expectations. These factors imply that even long-term deviations from the theoretically inviolable law of one price may indeed exist; in fact, such phenomena point to significant imperfections in market operations, and/or competition or infrastructure issues.

In the Russian motor gasoline market, the effect of the law of one price – if applicable – will mean that the domestic producer price of motor gasoline (less indirect taxes) should be equal to its export price less export duty, average transport costs and the arbitrary margin set by exporters. In their turn, domestic motor gasoline prices for Russian retail consumers are made up of domestic producer price, excises, VAT, and the costs associated with wholesale and retail trade services. Thus, whenever the law of one price does apply, the movement trajectory of domestic consumer prices and that of export prices for Russian-made motor gasoline are closely interrelated.

As a quantitative parameter of measuring the effects of a the law of one price in the Russian motor

1 The ratio of unit price of exports to that of imports.

2 V Minenergo predupredili o sokrashchenii proizvodstva benzina v 2015 godu [The RF Ministry of Energy Warned That Motor Gasoline Production Will Drop in 2015] // RBC, 03.04.2015 [http://top.rbc.ru/business/03/04/2015/551d6cd89a7947f74c53021]

Table 1.

**THE STRUCTURE OF DOMESTIC AND FOREIGN PRICES FOR RUSSIAN-MADE MOTOR GASOLINE IN 2013  
(AVERAGED VALUES), RB/L**

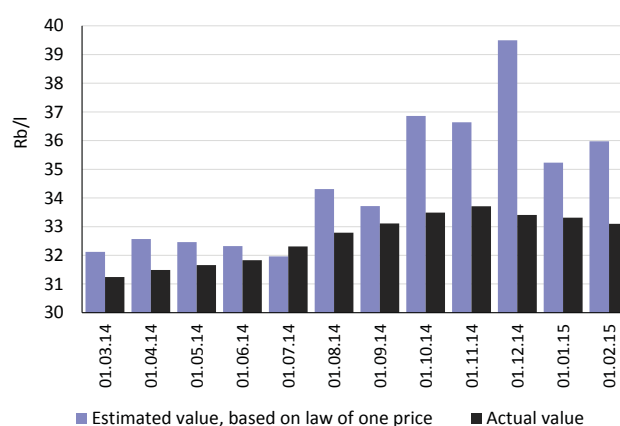
Russian domestic prices for motor gasoline		Foreign prices for Russian-made motor gasoline	
Domestic consumer prices	29.87		
costs, margin and additional VAT levied in retail trade	+3.71	26.51	Export price (less taxes)
Domestic price of industrial entities	26.16	+0.61	margin of export sales
excise	+6.59	+2.39	transport
costs, margin and VAT in wholesale trade	+4.52	+8.46	export duty
Tax-free producer price (actual value)	15.06	15.06	Tax-free producer price (calculated)
Input of direct taxes	+1.77		
production costs and rate of return	+5.30		
Input in price of oil	+8.00		

Sources: Rosstat; Federal Tax Service (FTS); authors' calculations.

gasoline market, we may apply the actually observed tax-free producer price set against the value of the same price index calculated on the basis of the export price for Russian petroleum products. From *Table 1* it follows that, in 2013, the effects of the law of one price were generally quite visible in the Russian motor gasoline market<sup>1</sup>.

On late 2014 and early 2015, three relevant factors potentially influencing the level of prices for Russian-made motor gasoline underwent some significant changes: first, the world prices for oil denominated in USD and the prices for Russian petroleum products denominated in USD changed, but in different proportions<sup>2</sup>; secondly, the ruble-to-USD exchange rate markedly weakened; thirdly, alterations to existing tax legislation were introduced, whereby from 2015 onwards, the rate of export duty on motor gasoline denominated in USD was to be reduced.

An accurate reconstruction of microeconomic calculations reveals that pronounced deviations from the law of one price could be observed over the entire past six-month period: *Fig. 1* demonstrates the behavior of average actual consumer prices for motor gasoline set against that of their estimated values obtained with due regard for the assumed effects of the law of one price. Thus, in particular, while in early 2014 and in the course of the two previous periods (which



Sources: Rosstat; Federal Tax Service (FTS); authors' calculations.

*Fig. 1. The Behavior of Average Actual Consumer Prices for Motor Gasoline and Their Values Calculated on the Basis of the Law of One Price*

were relatively stable with regard to terms of trade) the difference between the two indexes was no more than 2–3%, later on – from October 2014 onwards – it began to increase, peaking in December at 18.2%, and then declining by February 2015 to 8.7%.

In technical terms, the obtained result can be explained by the fact that the decline of the exchange price of oil denominated in USD was somewhat steeper than that of the export price of Russian-made petroleum products. The additional reduction of the rate of export duty denominated in USD translated itself into a decline of the domestic price of motor gasoline denominated in USD that was less significant than previously expected. At the same time, in accordance with the law of one price, the decline of national currency's foreign exchange rate should not only have fully neutralized the resulting effect in terms of USD, but also pushed up the ruble-denominated domestic price of motor gasoline. The argumentation and the chart pre-

1 For more details on the methodology applied in our calculations with regard to Russian petroleum products and oil, see G.I. Idrisov, S.G. Sinelnikov-Murylev. Oil Export Duty: Cancel or Preserve. // *Neft Rossii*, No. 12, p.p. 72–77; G.I. Idrisov, S.G. Sinelnikov-Murylev. Modernization or Conservation: the Role of Export Duties on Oil and Oil Products // *Economic Policy*, 2012, No 3, p.p. 5–19.

2 While the world price of URALS over the period from September through December 2014 dropped by 36.28% (from \$ 95.84 to \$ 61.07 per barrel), the price of Russian petroleum products denominated in USD, according to data released by Rosstat, over the same period dropped by only 9.04% (from \$ 758 to \$ 689 per ton).

sented here graphically demonstrate that the question ‘Why don’t domestic prices for motor gasoline decline, if world prices of oil have plunged?’, in fact, has no sense; what really makes sense is the question that asks exactly the opposite: ‘Why don’t domestic prices for motor gasoline display growth, if supplies to the domestic market in the current situation are unprofitable for producers?’.

We can offer at least three explanations for this state of affairs. First, the prices for motor gasoline on the domestic market are very rigid. High competition, uncertain economic situation, the expectations of a strengthening national currency, possibly the existence of covert agreements between Russian producers and the authorities aimed at supporting Russian consumers – these are the factors that more or less conduce to domestic prices staying at their current level. It should be expected that, as the economic situation becomes more stable, and prices less rigid, the domestic prices for motor gasoline may adjust to the effects of the law of one price; until then, Russia’s oil-refining industry will have to put up with the potential losses from sales on the domestic market. Secondly, there exist a number of infrastructural or regulatory constraints on trade. As the transport costs denominated in USD remain practically unchanged, the growth of ruble-denominated export prices could push up the volume of exports of Russian petroleum products and slash the supplies on the domestic market; this situation, in its turn, could translate itself into growth of

domestic prices and increasingly profitable domestic sales. Thus, a new equilibrium would be established at a higher tax-free producer price, in conformity with the law of one price. However, if exports cannot be increased due to the existence of infrastructural or regulatory constraints, the markets disintegrate into separate segments, and so the law of one price simply does not work. Thirdly, there may exist some changes in the structure of export price for Russian petroleum products that could have been overlooked in our calculations. In other words, the old model of exports could be replaced by a new one. The financial and economic sanctions, increasing costs associated with negotiations, and significant alterations in the structure of foreign demand for Russian petroleum products may push up several times the amount of transaction costs associated with export, and so a different rule will have to be applied in order to calculate the domestic price of a product on the basis of its export price. It is also possible that, in the long run, some ‘new’ law will replace the ‘old’ law of one price.

Strictly speaking, we cannot unequivocally reject any of the three possible explanations; but the situation with regard to the domestic market for petroleum products appears to be nevertheless very interesting. We tend to believe that, in the second half year of 2015, if oil prices and foreign exchange rates stay at their present level, Russia’s domestic ruble-denominated prices for motor gasoline will undergo a natural upward adjustment. ●