

THE IMPACT OF INCREASING THE EXCISE DUTY ON FUEL IN ECONOMY

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***Abstract:** Auto fuels represent an important source of revenue to the state budget by the excise levied on their pump prices. When oil prices rise, most of the states usually try to increase the price of gasoline, but not when the price falls, not to be affected the budgetary provisions. Starting with April 1, 2014, in Romania will come into force the tax measure according to which the excise duty on fuel increases by 7 cents / liter. The aim of our work is to determine the direct and indirect effects on the economy, namely in what way the main actors on the market will be affected: public authorities, economic agents (small and medium enterprises) and population (final consumers). Analyze the impact of higher excise duty on fuels means, in our opinion, to determine the effects caused by the new formula for calculating it to the state budget, the share in transport costs (direct effects) and its influence on living standards of the population (indirect effect).*

***Keywords:** fuel excise duty, exchange course, costs, economic agent, population*

***JEL classification:** H22, H23, H27*

INTRODUCTION

Excise duty appearance is explained by financial reasons, as in the case of any tax. In time, however, there has been a widespread application of these taxes for consumption, application that also regards moral and social goals. As such, we find the excise duties important both in terms of the revenue they bring to the state budget and as a potential leveraging that can be intensified in order to achieve social considerations.

From the consumer perspective, excise duty is as undesirable as any tax is and the effects on consumption pattern are significant. Even if there is a reduction in consumption of products over which it is applied, there are side effects, more severe, such as rising the smuggling and counterfeit or weak quality products. Therefore, we believe that an increase in excise duty may not reduce consumption because it will be "fueled" by the black market and hence the budget revenues will not increase either. However, we can say that indeed excise duty is an important source of income, especially in countries that are emerging; in Romania, for example, these revenues represent about 3% of GDP.

THE NEW FORMULA FOR CALCULATING THE EXCISE DUTY ON FUEL AND ITS IMPACT ON ECONOMY

Excise duty have increased starting with 1 April 2014 as it was introduced a new method of calculating them by GEO 102/2013 which amended the Fiscal Code. Specifically, it has changed the exchange rate to which the excise duty is established.

According to GEO 102/2013, if the exchange rate established by the European Central Bank on the first day of October of the previous year, which is published in the Official Journal of the European Union, is smaller than the one previously existing in the previous year, then it is taken into account the rate during the previous year of the year

before. It will be updated with the annual average of consumer price index (CPI) in September the previous year, announced by the National Statistics Institute until October 15. Also, for 2014, the annual average of the CPI calculated in September 2013 is about 104.77%.

In conditions in which the exchange rate established by the European Central Bank in 2013, of 4,4485 lei / euro, is smaller than the one in 2012 of 4.5223 lei / euro, the rate taken into account to determine the excise duty in 2014 will be, according to the new regulations, the one in 2012, namely 4.5223 lei / euro. To this it will be added the inflation rate in September 2013, which is 104.77%.

Specifically, the formula for calculating the exchange rate for excise duty in 2014 is as follows: $4.5223 \text{ lei / euro} \times 104.77\% = 4.7380 \text{ lei / euro}$. Thus, excise duty will be established in 2014 according to the exchange rate of 4.7380 lei / euro, higher than the one of 4.4485 lei / euro, established until the changing of Fiscal Code (according to the "Special Report Price of gasoline and diesel in 2014. Predictions", Energy Report, 2014).

Amendments brought to the Fiscal Code by GEO 102/2013 changed not only the way of calculating the exchange rate, but also increased the fuel excise by introducing a fee of 7 cents / liter of fuel. Specifically, the fuel excises have increased as a consequence of a higher exchange rate, but also because of the increase introduced by the authorities.

The fuel excise duties available from April 1, 2014 are as follows:

- Leaded gasoline, the excise duty is increased by 16.6% to 637.91 euro/ tone, from 547 euro/ tone and 491.19/ 1000 liters from 421.19euro/1000 liters;
- Unleaded petrol excise duty increases by 19.4% to 557.91 euro/ tone, from 467 euro/ tone and 429.59 from 359.59euro/1000 liters;
- Diesel excise duty increases by 21.2% to 473.85 euro/ tone from 391 euro/ tone and to 400,395 from 330,395euro/1000 liters;
- kerosene, used as motor fuel excise duty will be increased by 18.6% to 557.39 euro/ tone from 469,89euro/ tone and 445,91euro/1000 liters from 375,91 euro/ 1000 liters (source: Ministry of Finance, "Report on the macroeconomic situation in 2014 and its perspectives for the years 2015-2017").

EFFECTS ON MARKET ACTORS

The state budget

In general, market prices depend primarily on the ratio of demand and supply and therefore on competition. There are also markets where competition is restricted as a result of several factors which limit access to market of new players, among which the most important are stringent regulation of the scope and level of taxation applied. Fuel market is one of the markets in which the ratio between traders and customers is unbalanced. And on such a market, given the share of taxes in the final price, managerial factors are much less edifying. The price of petrol and diesel depends primarily on taxation, exchange rate and international oil price.

The increase in fuel excise duty imposes a burden of approximately, 40 lei both on petrol and diesel.

In 2013 the revenues collected from excise duty per 1000 liters of unleaded petrol were 1.627 lei and 1.494 lei from excise per 1000 liters of diesel. After indexing with the inflation rate and the inclusion of infrastructure tax in the excise duty, it will be received 2034.5 lei and 1.897 lei for both types of fuels. More specifically, starting on 1 April, excise revenues to the state budget will be 409 lei per 1000 liters in addition for petrol and 402 lei per 1000 liters for diesel. If we add the VAT it would result a tax burden of 0.40 lei per liter (source: "Special Report Price of gasoline and diesel in 2014. Predictions", Energy Report, 2014).

If before the increase, from the price of a liter of gasoline, 51.07% goes to the trader (of which he must pay the costs of raw material, labor and investment and he should remain with a profit margin) and 48.83 % to the state (excise duty and VAT), after increasing excise duty, if he fully assumes this increase, the trader would benefit only of 43% of the price of gasoline and the state of 57%.

The situation is similar in the case of diesel, which at present 53.89% of the price goes to the retailer and 46.11% to the state.

Assuming a price increase of 0.40 lei, the state will receive a 54% (3.185 lei) for gasoline, respectively 50.5% (3.079 lei) in the case of diesel, while the trader will have a percentage of 46 % (2.715 lei) for petrol and 49.5% for diesel (3.022 lei).

As a percentage, excise duty on petrol will increase by 19.5% and on diesel will be higher by about 21%. After the additional excise duty by seven cents, the effect of which is amplified to pump by the implementation in cascade of VAT, the amounts of 810 million lei from petrol and 1.867 million lei from diesel are expected to be collected to the state budget.

Reported to the GDP estimated by the National Commission of Prognosis in 2014 of about 664.4 billions lei, that means 0.12% of GDP from petrol and 0.28% of GDP from diesel. More precisely, 0.4% of GDP in total or an increase of 1.2% of total revenues in the general consolidated budget.

Basically, the increase in fuel prices will have a direct statistical effect expressed also by a plus of 0.4%, but applied to the consumer price index for the population. This to a share of about 5.5% for fuel in the consumption basket (difference up to share of 8.29 % of fuel is represented by wood fire, petroleum gas etc) and an extra estimated at first instance for about 0.40 lei per liter.

Besides the direct effects, indirect effects will be seen in the price of all products that are to be transported to the consumer (by the percentage of distribution costs for each) and in tariff for transmission services, where fuel represents an important part of current expenditures.

A suggestive comparison should be made with the decrease of VAT on bread, which had an opposite effect and was at least of the same magnitude; the product (the bread) represents a similar share in the basket of consumption; VAT decrease for bread produced total effect estimated to about - 0.6% per general inflation officially recorded. Symmetrically, increasing of motor fuels and gas costs will determine an increase in production costs, putting pressure on delivery price and competitive offer. Effects are difficult to calculate as the relatively small price changes can transform a competitive offer into one that might no longer be preferred by customers, especially in a difficult international context.

We detail what we have stated above, with two hypotheses, the current price of fuel, respectively when price increases by 0.40 lei / liter:

Table 1
Situation according to the price of gasoline

| What represents | Current price= 5,5lei/l | Price= 5,9(increased by 0. 40 lei and the application of the new excise duty) |
|------------------------|---|---|
| VAT(lei) | 1,065 | 1,15 |
| Excise duty(lei) | 1,626 | 2,035 |
| Trader(lei) | 2,809 | 2,715 |
| % for state and trader | 48,83% goes to the state from the two taxes, 51,07% to the trader | 54% to the state, 46% to the trader |

(Source: Energy Report "Special Report on gasoline and diesel", 2014)

Table 2
Situation according to the price of diesel

| Representing | Current price= 5,7lei/l | Price= 6,1 (increased by 0, 40 lei and the application of the new excise duty) |
|------------------------|---|--|
| VAT(lei) | 1,134 | 1,181 |
| Excise duty(lei) | 1,494 | 1,897 |
| Trader(lei) | 3,072 | 3,022 |
| % for state and trader | 46,11% goes to the state from the two taxes, 53,89% to the trader | 50,5% to the state, 49,5% to the trader |

(Source: Energy Report Special Report on gasoline and diesel”, 2014)

Firms and population

Components of fuel prices are VAT (VAT), excise duty, special tax for road, logistics costs (primary and secondary distribution), the operating costs for the distribution network, raw material costs (including the costs of processing it), financial costs and trade margin. Basically, the pump price of fuel is made up of more taxes, added to the production price of fuel, namely excise duty, VAT, road tax, solidarity tax of a cent / liter.

Unfortunately, the market effect will not be seen only to the petroleum company stations. The most basic economic rules state that modifying the fuel prices determine price increases in all sectors. Therefore, if diesel and gasoline prices increase when automatically all products and services that depend on the transport market will have higher prices.

The measure will visibly affect actors in the market, who will be forced to put pressure on prices. This will lead to increases in industry, namely the growth of transportation costs in the first place, so implicitly increases for work performed.

Firms will also be affected by the fuel price increases and in addition, for some of them it will come into force some new taxes (for example, property tax for the special constructions).

National Council of Private Small and Medium Enterprises in Romania conducted during the period 16 January – 22 January 2014 a survey aimed at the opportunity and the impact of higher excise duty on fuels and its potential effects on SMEs sector in Romania

Respondents of the survey were 71% micro, 26% small enterprises and 3% medium enterprises. The structure of SMEs surveyed by the field of activity was as follows: 41% - services, 18% - industry, 15% - trade, 9% - transport, 6% - construction and 6% - agriculture.

To the question, "How will you be affected by the increase in excise duty on fuel in 2014?", 76% of respondents considered that they would be greatly affected, while the remaining 24% indicated a moderate impact.

Entrepreneurs surveyed indicated the following effects of the increase in excise duty on fuel on their business: reducing the size of the business (59%), maintaining the business to its current size (24%), closing business (15%) and moderate expansion of the business (3%).

To the question, "How much you think the prices of products / services of your company will raise as a result of increases in fuel excise duty?", all respondents declared that the measure would determine a direct effect on the price increase, namely 74% of respondents predicted an increase of more than 3% of the prices of products and services provided by their company, 24% of respondents indicated an increase of over 10%.

SMEs which responded to the survey pointed out several areas of their business that would be mostly affected by the increase in fuels duty: the relation with customers (79%), cost reduction (53%), relation with suppliers (38%), reducing the number of employees (38%), making products / services (24%) and the introduction of new processes technological (6%).

Regarding the magnitude of the impact that the increase in fuel excise duty would have on the dynamics of the financial obligations of SMEs, the entrepreneurs surveyed predicted significant growth in the size of loans the bank - in a proportion of 18%, of debt to suppliers - 24%, of debt of customers to the company - 32% and the size of unpaid CAS, VAT and other taxes- 32%.

To the question, "What other measure would you consider to be adopted instead of the increase in fuel excise duty?", 47% of SMEs have requested the reduction of budget expenditures, 35% mentioned strong measures in order to minimize tax evasion and increase the collection level, highlighting the importance of rapid absorption of European funds for the investment works and growth of royalties on natural resources.

The implementation of the increased excise duties will lead to an effective rise of 0.41 lei per liter of diesel and petrol fuel. Specifically, of the those 0.41 lei, 0.35 represents the effective rise caused by the excise duty and 0,06 lei represent the VAT related to higher price. This means an increase in chain of corporate costs, regardless of the sector in which they operate, as all societies have a car park or need transportation for the goods produced.

The increase will be felt in the cost of production of consumer goods and, finally, in the prices on the shelves and implicitly on population, which, besides the fuel used for the own the cars, will spend more for other needed products. Basically, the population will be most affected by this increase of excise duty, as good percentages of it will go to the final consumer. Population will experience a reduction in purchasing power. The direct impact should be calculated taking into account other economic issues, namely the monetary policy interest rate, exchange rate, inflation, which is visible at that time.

The effect of fuel pump

In the last five years, Romania has been consistently placed on the last two positions among EU states regarding the fuel prices. Cheaper fuel than the one from Romania could be found only in Bulgaria, which was quite natural, given the very low purchasing power of the two countries. But from the April 1, the situation has changed. By introducing the excise duty of 7 cents/ liter resulted higher prices of fuel by 0.40-0,41 lei; this determined Romania to climb several steps, even reaching in the first half of the league, at least as regards the price of diesel. What is worse is that Romania exceeded even Hungary by the current prices of gasoline and diesel.

Therefore, prices being higher in Romania, those who transit our country will prefer to fuel in Hungary and Bulgaria, on the border, and this thing will have consequences on fuel consumption. In this respect, specialists stated the introduction of additional excise duty would lead to a decrease in fuel consumption by 1% and 3%.

The classification daily made by Europe's Energy Portal shows that starting with April 1, Romania does no longer occupy the last two places in the EU regarding the fuel retail prices. To unleaded petrol, Romania has reached the 20th position of 28 countries, with a retail price of 1,342 euro / liter, given the fact that until now it ranked the 27th. On diesel situation is even more serious, considering that Romania has "jumped" the 14th, with a retail price of 1,358 euros / liter. Countries as Austria, France and Spain have cheaper diesel than Romania.

More precisely, gasoline less expensive than Romania can be purchased in Bulgaria (1,280 euros retail price), Czech Republic (1,310 euros), Estonia (1,299 euros), Hungary (1,315 euros), Latvia (1,301 euros), Lithuania (1,300 euro), Luxembourg (1,300 euros) and Poland (1,272 euros). Also, diesel is cheaper in Austria (1,315 euros retail price),

Bulgaria (1,301 euros), Croatia (1,277 euros), Czech Republic (1,329 euros), Estonia (1,279 euros), France (1,301 euros), Hungary (1,353 euros), Latvia (1,277 euros), Lithuania (1,271 euros), Luxembourg (1181 euro), Poland (1,278 euros), Slovakia (1,349 euros), Slovenia (1,351 euros) and Spain (1,330 euros) (source: Bloomberg, 2012, "Suffering at the pump" Classification).

Reported to the purchasing power, Romania could reach even the first position in the EU between countries with the most expensive gasoline. Before, Romania was surpassed only by Bulgaria, according to a ranking called "Suffering at the pump", conducted by Bloomberg in May 2012. At that time, at global level, Romania ranked 7th positions in that classification.

Table 3
Situation regarding the fuel price and the purchasing power

| Country | Gasoline price(euro/liter) | Diesel price(euro/liter) | Average net salary(euro/month) |
|----------------|----------------------------|--------------------------|--------------------------------|
| Germany | 1,521 | 1,353 | 2.083 |
| Czech Republic | 1,302 | 1,322 | 676 |
| Poland | 1,268 | 1,271 | 625 |
| Hungary | 1,312 | 1,346 | 473 |
| Romania | 1,341 | 1,369 | 352 |
| Bulgaria | 1,283 | 1,303 | 301 |

(Source: Europe's Energy Portal)

REIMBURSEMENT OF A PART OF EXCISE DUTY AND POTENTIAL PROBLEMS ENCOUNTERED

Repayment to a group of transporters of a portion of the fuel excise of 7 cents determines a number of practical problems. In the worst case, this measure designed to compensate fuel price increase will have harmful effects on other categories of transporters and will encourage tax evasion and fuel made in Hungary or other countries at border.

Problems caused by reimbursement might be:

- the procedure is not well-defined, categories of vehicles included are not clearly specified, thus confusion and inconveniences may occur. Tax officers, insufficient in many districts, will have more papers to read and the system could be overwhelmed by the volume of requests;
- encouraged by the possibility to recover money from the state, some transport market players will be tempted to bring fictitious invoices just to gain from a financial perspective. Fraud can be taken further and some of them may establish transportation companies, which do not have real activity, but are used in order to recover fraudulently excise duty through false invoices;
- dubious gas stations could enter the system, in collaboration with those with fictitious invoices and might make requests for refunds never needed;
- implementation of reimbursement is applied to large vehicles over 7.5 tones and the measure can be regarded as discriminatory because it excludes groups that use more fuel: taxi services, courier, transport of food in low tonnage vehicles. Basically, to these categories will increase fuel costs and these will be transferred into higher prices for services.

CONCLUSIONS

Tax incidence does not depend on the category of economic agents (consumers, producers, employers, employees) on which it is formally imposed (from which they are collected); in practice, both consumers and producers pay a proportion of the tax charged and the tax paid by each is the same, no matter to whom the tax is levied.

In our opinion the increase in fuel excise duty is not beneficial as it produces more negative effects than positive, namely:

-a decrease in the quantity traded. Also, there is an increase in the price paid by the consumer and a price decrease retained by the producer. Basically, both producers and consumers actually pay a part of excise duty, even if the tax is levied only from producers;

-a reduction of welfare of consumer, as he pays a higher price and consumes less;

-a reduction in the profit of the producer;

-a reduction in total welfare due to the introduction of this tax.

In conclusion, the introduction of excise duty affect both producers and consumers and society as a whole. In fact, the loss is caused by the fact that, as the initial situation, it is consumed / sold less at a higher price for consumers and smaller for producers. Consumer loss shows how much they have to pay more for the quantity of products purchased as a result of the introduction of excise duty. Producer loss represents the loss of profit due to the introduction of excise duty. Society loss consists in reducing the disposable income of consumers (to which disposable income decrease because they have to pay a higher price for the good under excise incidence) and producers (to which profits are diminished), causing a loss at social level (both producers and consumers can no longer buy the same quantities of goods and services they purchased before introducing the increased excise duty).

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