



## **Effective Taxation Mechanism and Profitability in Fuel and Energy Industry: Case Study of Selected Oil and Gas Companies in Uzbekistan**

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**Abstract:** Fuel and energy industry rules one of the well-positioned markets in the world economy which supplies planet's most needed and limited resources with evergrowing demands. Being a marketable supplier and leading movement of large flows of capital requires being surely treated as a leading investor, employer, and taxpayer. Taxation of fuel and energy industry, especially oil and gas industry has been an irreplaceable source of revenue for oil and gas exporting economies. New taxation rules, methods, and types have been regularly introduced to keep an optimal balance between government and company to keep both fiscal and corporate stability. However, taxation always does not stimulate corporate stability and in most cases hinders expansion. Changes in taxation directly effect in profitability and perspectives of the company. This paper examined the impact of taxation on the profitability of oil and gas companies in Uzbekistan. Model-based analysis proved that tax factors negatively influenced the profitability of selected oil and gas companies.

**Keywords:** Fuel and energy, Oil and gas company, Taxation, Profitability, Uzbekistan.

### **1. Introduction**

Effective taxation is a relative but a powerful term to define the fairness and quantitative normality of any tax on a particular taxable item. Effective taxation has illustrated the practice of fair taxation at least theoretically. Nowadays position of effective taxation shifted from the debates of academic rounds to policymaking agendas. Taxation became one of the central issues of the national economy which has a direct impact on the business environment and fiscal stability. Therefore, on a global scale, effective taxation is a regularly revisited topic of research and policymaking. After global financial crisis and recent oil price drop, oil and gas industry faced a deep financial trouble which was impossible to avoid and hard to recover. Profit loss, financing shortage and lack of expected quantity of demand to keep a stable financial shape made even globally leading oil and gas companies to ask governmental support in easing taxation. Oil and gas industry received a double hit of global economic processes: the financial crisis and price shock. Consequently, companies operating in this industry rethought the business strategy and relations with the government about new financing and taxation rules. Oil and gas miners needed government support to maintain the regular market saturation and full market supply for their goods and, certainly, they tried not to lose market share and corporate fame. Governments of many oil exporting economies eased taxation mechanism and provided subsidies to rescued large oil producing companies from collapse.

Uzbekistan is a country with large reserves of natural gas and oil in part. Oil and gas industry, especially fuel and power industry, gains central importance due to its significant contribution to meeting industrial and individual demand. Oil and gas industry, in line with fuel and power industry (these two industries are integrated), is one of the vital sectors which keeps the Uzbek economy healthy and stable. Considering the role of Uzbekistan in the world as a leading exporter of natural gas, it can be imagined how this industry is important. In Uzbekistan, oil and gas industry is well-developed through a centralized cluster of companies under the Uzbekneftegaz National Holding Company (Uzbekneftegaz NHC hereinafter) which embraces several specialized enterprises for diverse oil and gas mining, refinery and processing operations. Moreover, several leading foreign multinational corporations as KorGas, LUKOIL, Petronas are jointly

operating in oil and gas industry and helping in meeting demand for fuel and energy. Taxation in fuel and power industry, particularly oil and gas sector, is much softer and friendlier in comparison with taxation regimes in many oil and gas exporting countries. The generally applicable fiscal regime that applies in Uzbekistan to exploration and production contracts in the oil and gas industry consists of a combination of corporate income tax (7.5 percent), bonuses, subsurface use tax (from 2.6 to 30 percent), excess profits tax (50 percent) and other generally established taxes and contributions (Ernst & Young, 2015). VAT (20 percent), infrastructure development tax (8 percent), unified social payments (25 percent) and property taxes (4 percent) are levied. Moreover, soft taxation policy offers investment incentives to foreign investors to open enterprises in order to stimulate technology transfer, business administration skills and export capacity development.

Effective taxation mechanism is always on the top agenda in all oil and gas exporting economies, including Uzbekistan. As world economy keeps expanding, one of the largest and highly demanded markets – oil and gas market develops in terms of supply and segmentation. It poses new issues in the taxation of oil and tax companies inconsistent with new market regimes by keeping the balance between public (tax) and corporate (profit) interests. This article examines the effect of taxation in profitability of selected oil and gas companies in Uzbekistan and provides analysis-led recommendations to improve taxation mechanism further.

## 2. Literature Review

Taxation of fuel and energy producing companies has more practical character than a scientific one. Therefore, as a backbone area of this industry, taxation of oil and gas companies is a permanent topic of policymaking debates at a global level. Fiscal purposes have been prioritized in oil and gas company taxation in many countries that are rich in energy resources and taxes from this sector were a significant revenue source for the government budget. Despite the limited number of literature, there are some researchers who investigated oil and gas taxation issues or at least touched to the core. In US context, Walter et al. (1982) examined the effect of taxes on the profitability of US oil and gas production through the case study of OSC Record. They depicted the overall condition in US oil and gas taxation policy and stressed that oil and tax companies were treated as excessively large income earners by policymakers and there were attempts to tax "excess profits" as much as possible. Their comparative study proved that after-tax yield of US oil and gas companies were not larger than those of companies operated in other sectors, and oil and gas companies were not an attractive sector to impose excessive taxes. Kosonen and Nicodeme (2009) prioritized environmental aspects in the taxation of oil and gas sector from the standpoint of policymaking perspective and found that fiscal instruments help to regulate both oil and gas market and environment. The most relevant literature we leaned in this research is a report by Finnish Energy Industries which compared the oil and gas, fuel and transport taxation in the US, EU and Japan in terms of effectiveness and modernity. Comparisons resulted that regressive taxes on oil and gas, fuel and transport consequently cut the consumer demand in all economies, including high-tax countries.

## 3. Methodology

In this paper, we analyse the impact of tax and cost on the profitability of large – Uzbekneftegaz NHC, medium – Andijonneft Joint Stock Company (Andijonneft JSC hereinafter) and small – Sarbon-Neftegaz Joint Stock Company (Sarbon-Neftegaz JSC hereinafter) oil and gas companies in Uzbekistan through the following equation in OLS model:

$$[(NP)]_{it} = \alpha_0 + \beta_1 [(TP)]_{it} + \beta_2 [(TC)]_{it} + \beta_3 [(PTI)]_{it} + \varepsilon_i$$

Where, NP – net profit of i enterprise in t period

TP – amount of tax paid (or profit tax in) by i company in t period

TC – total cost incurred in t period by t company

PTI – pre-tax income of i company in t period

In our model, we hypothetically accepted that three powers influence on the profitability of oil and gas or fuel and power producing companies: tax, income structure, and cost structure. Theoretically, a tax is also a cost which company is subject to pay to the government. But here we assume it as a separate factor. We set indicators and factors for profitability and three independent factors which impact on profitability. Net profit is used as a profitability indicator. Taxes paid are a proxy defining tax factor, as it shows the dynamics of the amount of tax payments in the selected period. Here the total

cost is an indicator of company's cost structure, and it is selected to make the OLS analysis more comparative, as a tax is also a cost. Pre-tax income reflects the income and tax structure of a company, and in our model, it represents the income factor.

## 4. Result and Discussion

Using EViews 9.5. analysis tool we estimated the impact of tax, income and cost factors on profitability by analysing quarterly data in financial reports for 2015-2017 financial years. We selected financial statement data in 8 consecutive quarterly reports of all three selected oil and gas companies. Application of estimation model we specified showed differentiating results in each selected enterprises. Impact scenario of Uzbekneftegaz NHC, the largest oil and gas company in Uzbekistan, reflected the indifference between profitability and cost factors. Income factor stimulated profitability, while tax factor influenced negatively at an equal level of impact (Table 1).

**Table 1:** OLS estimation for Uzbekneftegaz NHC

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.32E-09	2.53E-09	-0.520497	0.6302
PTI	1.000000	1.60E-16	6.25E+15	0.0000
TAX	-1.000000	1.69E-13	-5.92E+12	0.0000
TC	0.000000	2.42E-16	0.000000	1.0000
R-squared	1.000000	Mean dependent var		9007321.
Adjusted R-squared	1.000000	S.D. dependent var		12971875
S.E. of regression	3.05E-09	Akaike info criterion		-36.07191
Sum squared resid	3.72E-17	Schwarz criterion		-36.03218
Log likelihood	148.2876	Hannan-Quinn criter.		-36.33981
F-statistic	4.22E+31	Durbin-Watson stat		1.276547
Prob(F-statistic)	0.000000			

**Source:** Author's estimations. Data from [www.openinfo.uz](http://www.openinfo.uz)

Mid-size oil and gas company Andijonneft JSC has a distinguishing set of relations among profitability, tax, income and income factors. Tax factor had a negative effect on profitability to the same extent with Uzbekneftegaz NHC. Pre-tax income composition and growth supported net profit growth. However, cost factor was not indifferent and lowered net profit insignificantly (Table 2).

**Table 2:** OLS estimation for Andijonneft JSC

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	278.8816	193.3264	1.442543	0.2226
TAX	-1.003018	0.006673	-150.3163	0.0000
PTI	0.998709	0.008994	111.0427	0.0000
TC	-9.87E-06	4.65E-05	-0.212258	0.8423
R-squared	0.999931	Mean dependent var		22433.38
Adjusted R-squared	0.999879	S.D. dependent var		21080.64
S.E. of regression	232.1816	Akaike info criterion		14.03977
Sum squared resid	215633.1	Schwarz criterion		14.07949
Log likelihood	-52.15908	Hannan-Quinn criter.		13.77187
F-statistic	19233.52	Durbin-Watson stat		2.779692
Prob(F-statistic)	0.000000			

**Source:** Author's estimation. Data from [www.openinfo.uz](http://www.openinfo.uz)

SarboN-Neftegaz, a comparatively small-size company, operating in Uzbek oil and gas industry, OLS test results suggested that tax and income factors followed the same impact scenario with Uzbekneftegaz NHC and Andijonneft JSC. However, profitability indicators negatively reacted to changes in the cost structure of the enterprise (Table 3).

**Table 3:** OLS estimation for SarboN-Neftegaz JSC

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.008206	0.007920	-1.036132	0.3587
TAX	-1.000001	1.41E-06	-708828.0	0.0000
PTI	1.000000	2.13E-07	4694945.	0.0000
TC	3.96E-09	1.06E-08	0.373159	0.7280
R-squared	1.000000	Mean dependent var		687162.4
Adjusted R-squared	1.000000	S.D. dependent var		479151.6
S.E. of regression	0.008609	Akaike info criterion		-6.365176
Sum squared resid	0.000296	Schwarz criterion		-6.325456
Log likelihood	29.46071	Hannan-Quinn criter.		-6.633077
F-statistic	7.23E+15	Durbin-Watson stat		2.211995
Prob(F-statistic)	0.000000			

**Source:** Author's estimation. Data from [www.openinfo.uz](http://www.openinfo.uz)

Despite differences in impact channels and level of response to changes in selected factors, there are some similarities in all three cases. Effect of changes in income and tax of all selected oil and gas companies was almost the same level and manner – tax factor negatively impacted, income supported profitability. The amplitude of impact was at the same level with approximately 1.00 unit of income factors and -1.00 unit of tax factor.

## 5. Conclusion

Taxation of fuel and energy industry, especially oil and gas industry is a complex but hard-to-touch of modern fiscal policies, seeing the fact that global fuel and energy market is one of the fulcrum of the world's economy. In an approach to the taxation matters to the oil and gas companies, its macroeconomic, fiscal and environmental aspects have to be particularly rethought. Recent oil price shock and a consequent economic slowdown in oil and gas exporting countries revealed the need for amending taxation mechanism of entire power and fuel industry. In the frontiers of our research paper, we study the profitability and tax factors of oil and gas companies in Uzbekistan and found that taxation policy is influencing on the profitability of oil and gas companies in the same manner and level no matter how big and how much market share belongs to them. By general taxation principles of fiscal policy of Uzbekistan, we propose following recommendations deriving from our research results:

1. Oil and gas industry is a systemically important sector for Uzbekistan's economy. Its efficient functioning and growth stimulate macroeconomic growth in many channels. Preferential taxation policy for fuel and energy companies can be useful to stimulate output and market saturation, as it was observed in US experience in the 1950s.
2. Current taxation practice initializes common taxation rule for all fuel and energy companies no matter how is their size. It will create room for expansion or recovery if classified taxation method is piloted oil and gas for companies in terms of size or profitability level.

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