

# Priorities for Improving Taxation in Oil Industry in Russia

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## Abstract

**Background/Objectives:** The study is dedicated to analyzing taxation in oil industry that is one of the principal instruments of governmental regulation in subsoil resource control along with subsurface resource management, investment and antitrust policies. **Methods/Statistical Analysis:** While studying taxation in oil industry, statistical methods have been applied together with the methods of strategic and comparative analysis and systemic approach. Theoretical and methodological foundations of the study are represented by the investigations of domestic and foreign authors, Russian legislative and regulatory instruments relating to taxation problems, statistical and reporting data of the oil companies, the State Statistics Service and the Federal Tax Service of the Russian Federation. **Findings:** Basic trends and issues in developing the taxation system in oil industry in Russia have been identified. The priorities for its improvement have been suggested. Studying foreign practices of oil industry taxation, stages of developing tax regulations in Russian oil industry, key characteristics of modern tax system made it possible to identify the principal problems of taxation among which several major issues can be highlighted: The lack of tax incentives for the companies applying innovative technologies; absence of differential approach to calculating tax payments depending on the stage of the field development and tax advantages for the companies undertaking prospecting and exploration activities; tax distribution between the budgets; frequent amendments introduced to taxation schemes. These challenges make it difficult for the oil companies to elaborate and implement any long-term development strategy. In addition, the oil companies fail to take into account the changing business environment in the course of calculating tax payments, particularly, volatility of oil prices under current conditions and differences in the companies' export orientated businesses. **Application/Improvements:** Some measures have been suggested to improve efficiency. The results of the study have practical significance for developing the system of economic regulations in oil industry.

**Keywords:** Innovations, Mineral Replacement Tax, Oil Industry, State Regulations, Taxation

## 1. Introduction

Under modern conditions, oil is one of the basic energy sources meeting the needs of the growing population and of the developing world economy.

Oil resources are uppermost in terms of consumption (32.6% in 2014)<sup>1</sup> within the structure of the world fuel and energy balance. The largest consumers and importers of oil are the countries as follows (as of 2014): The USA (19.035 Million Barrel Oil Per Day), China (11.056 MBOPD), Japan (4.298 MBOPD), India (3.846 MBOPD), South Korea (2.456 MBOPD)<sup>1</sup>. The largest producers and exporters are represented by the following countries (as of 2014): The USA (11.644 MBOPD), Saudi Arabia (11.505

MBOPD), Russia (10.838 MBOPD), the United Arab Emirates (3.712 MBOPD), Kuwait (3.123 MBOPD), Iraq (3.285 MBOPD)<sup>1</sup>.

Notwithstanding the unstable market environment, the development of alternative energy sources and the volatile oil prices (more than 2 times drop over the last 2 years), according to the leading experts, hydrocarbon materials will remain the basic energy source in the long term perspective. In this regard, in the near future the world oil industry will continue playing an important part in economic development of both oil producing and oil consuming countries. Oil industry considerably affects the revenues of federal and regional budgets, investment environment, currency exchange rate and other

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key parameters of economic development in different countries. Thus, oil industry and petrochemicals production, without taking into account the export duties, in 2014 accounted for circa 23% (2,581 RUB bn) of revenues in the budget of the Russian Federation<sup>2</sup>.

Efficient operations of oil industry are to a large extent predetermined by the taxation system which could be understood as a certain system of distributing the revenues generated by this industry. The system of payments for using natural resources is, on the one hand, a financial instrument of governmental regulations in the sphere of subsoil resource management and on the other hand, it is an important source of forming the income base of the state budget and of ensuring the economic safety of the country in general<sup>3</sup>. Moreover, the taxation in oil industry differs considerably from the taxation in other sectors of economy, in as much as here significant unearned rental income is generated by exploiting the fields with relatively better quality and geographical location.

The problem of generating and exacting the rental income has been the focus point of many economic and political discussions both in Russia and abroad for a long time. In addition to it, in developed countries, the oil industry specific taxes in the form of royalties and extra payments gained wide application and there has been a tendency to shift to either progressive or proportional taxation scales over recent years (Great Britain, Norway). The royalty rates in developed countries depend on the prices for hydrocarbon resources, the efficiency of a well, the period of exploration, the stage of the field development as well as on many other factors, specific for any particular field<sup>4-7</sup>.

Recently, the government has been advancing different initiatives focused on changing the taxation legislation such as forming the taxation mechanism based on calculating Income-Added Tax (IAT), differentiating Mineral Replacement Tax (MRT) and others. The issues of taxation have been studied by leading specialists in governmental control in the sphere of subsoil resource management, by different consultancy and research companies, such as Skolkovo Moscow School of Management, VYGON Consulting, Ernst and Young, etc. At the same time, the world practices in oil industry taxation are a matter of considerable interest for the Russian Federation.

In this context, investigating the issues of tax regulations in foreign countries, generalizing the existing approaches to taxation in Russia identifying principal areas of its improvement make the subject matter of this study currently important.

## 2. Literature Review

The theory of rent was discussed in the works of the representatives of classical economy among which especially distinguished are the works by<sup>8-10</sup> developed the theory of differential rent<sup>11</sup> identified differential rent 1 and differential rent 2 stipulated by natural and economic factors accordingly. K. Marx determined the dependency of differential rent 1 on the efficiency of using natural productivity at different fields of deposits with the same amount of invested capital, while differential rent 2 was defined almost similarly, but here the higher efficiency was associated with the invested capital and labor. Given the fact that there was no private property in the USSR, in the 20th century, a socialist regime greatly affected the concept of rent extraction. To evaluate the natural and the raw material resources in the USSR and in the People's Democracies, a common methodology was applied based on taking into account the useful effects gained by using the resources<sup>11</sup>.

As theoretical ideas of rental income in mineral industry developed, so did different approaches to forming the system of taxation in foreign oil industry. Thereat, the main purpose of the state was to create a system which would ensure receiving the major part of rent revenues under efficient administration and which would not require great expenses<sup>12</sup>.

At the same time, up to now, the world practice has not developed a single taxation scheme for mineral industry; there are only some general common principles taken as foundations in particular countries, given their peculiar features, existing limitations and risks and social and political objectives.

Within the framework of the works dedicated to the world practices of taxation in oil industry, the authors define theoretical and practical advantages and disadvantages of different tax instruments in taxation systems of this particular sector of economy and identify their principal specific features<sup>13-15</sup>.

In modern Russia, the first attempt at developing the taxation system in oil industry has been undertaken in the end of 1992 by<sup>16,17</sup> who took part in preparing the draft law "On taxation in oil and gas industry" and developed Section 5 of the Law of the Russian Federation "On subsoil deposits", called "Payments in using subsoil deposits". Great contribution to developing and generalizing the principles of taxation in oil and gas industry has been made by<sup>18</sup> who postulated the principal trends in

modern taxation system of in oil and gas industry in his monograph study "Taxation in oil and gas industry".

Up to now, Russian scientists have conducted a great number of investigations, dedicated to the issues of taxation, to the problems of state control in oil sector of Russia to legislative and economic questions related to the oil sector development. The system of taxation is improved continuously and it is especially focused on stimulating field developments under constrained geological and production settings on producing the high quality petroleum products, on implementing large-scale investment projects targeted at developing the offshore wells requiring considerable fund injections in high-tech operations. However, frequent legislative amendments to the taxation system make it possible to maintain that there is no systematicity in it and this creates obstacles for oil business operations.

At the same time, modern environment of the oil sector is associated with certain important problems in its functioning affected by both internal and external factors, which suggests that the issues of taxation should be further investigated and the required improvements should be made.

### 3. Results

For the purposes of identifying the areas of improving taxation in oil industry, the current conditions of the oil sector have been analyzed, the issues related to taxation in Russia and abroad have been investigated.

The investigations undertaken in the framework of studying the current state of the oil industry in Russia allowed us to draw the following conclusions:

- Over the last 10 years in Russia, there have been trends for increasing a number of state owned companies and for decreasing a number of independent players on the oil market; economic concentration is growing continuously. Current conditions of the oil sector are characterized by quite a small amount of independent subsoil deposit users, which, in the authors' opinion, is explained by more effective terms of taxation applied to large oil companies.
- Notwithstanding the existing economic difficulties, associated with the drop in oil prices and with weaker ruble exchange rate, practically all vertically integrated oil companies have accomplished their investment and innovative programs, increased the output of

crude and refined oil, improved their resource bases and achieved normal financial results. The reason for this ability to maintain the planned performance indicators is the fact that the large companies try to avoid developing hard-to-recover deposits and usually proceed with selective uptakes of "conventional" deposits.

- The raw materials base of oil industry is characterized by depleting resources of quality oil, by increased share of hard-to-recover, small and the smallest deposit fields. At the same time, oil sector development is also associated with slow geologic exploration activities, with lower output figures in the regions of traditional business, higher capital and operational expenditures, lower oil recovery factor, technological backwardness, dependency on imports, deficient infrastructure in eastern regions of the country, growing idle wells fund.
- To develop the oil sector in Russia, today the priority should be given to ensuring stable production of oil, to improving the reproduction of oil resources by expediting geologic exploration activities, to developing the offshore wells and the fields in eastern part of Russia, to implementing state-of-the-art innovative technologies ensuring uninterrupted production by means of developing hard-to-recover deposits, to improving the eastbound hydrocarbon transport capacity, to decreasing the idle wells fund (Table 1).

Thus, in the nearest future, the projects targeted at oil resource development will be associated with high investments and high operation costs, which have to be taken into account while developing the taxation system in oil industry.

The fundamental principles of existing taxation system in the Russian Federation were established in 1990-1993 when the first package of federal laws on particular types of taxes was adopted. This package of the taxation draft laws stipulated the list of taxes, dues, charges and other payments; defined the taxpayers, their rights and responsibilities as well as the rights and responsibilities of tax authorities.

The period since 1994 until 1998 was notable for different changes occurring in economic and political environment of this country that called for amendments to the taxation system, including federal tax reduction, control over relations between taxpayers and the government, redistribution of major tax burden from producers to consumers.

**Table 1.** Areas of potential development of oil industry in Russia

General strategic issues of oil industry development	Priorities in developing oil industry
Structure of the unallocated subsoil reserve fund (sizes of oil fields)	Developing small and smallest deposits of oil
Idle wells	Transferring idle wells to independent companies on preferential terms, applying the technology of drilling the new (lateral) holes
Insufficient geological exploration	Stimulating the prospecting and exploration activities in Western and Eastern Siberia in the unallocated subsoil reserve fund
Low oil recovery factor	Applying new methods to increase oil production rate
Remaining oil in place	Improving hydrocarbon production practices
Deposits with hard-to-recover reserves and the deposits located in complex geological and business environment	Introducing innovative solutions and technologies
Undeveloped oil rims in the producing fields	Those deposits should be covered by special license

The end of the 90s was the period of unstable taxation in this country. It was then that the large-scale problems have been discovered in the existing legislation, which made the tax reform unavoidable. As a result of this reform, on January, 1, 1999 the first (general) part of Tax Code of the Russian Federation came into effect; it stipulated the rights and responsibilities of the participants in legal relations pertaining taxation, liability for tax-related violations, regulations on the process of fulfilling tax-related responsibilities, the rules for tax control, definitions and instruments. In 2000, the first chapters of the second (special) part of Tax Code of the Russian Federation have been adopted; since then it used to be amended and supplemented regularly.

Under current conditions, major part of revenues in the federal budget and in the budgets of the subjects of the Russian Federation consists of such taxes as Value-Added Tax (VAT), Mineral Replacement Tax (MRT), corporate tax and individual income tax (Table 2). Thereat, extraction of minerals, without export duties, accounts for circa 30% of budget income. At the same time, the share of tax payments from fuel resources production amounts to 97.5% and the oil sector together with petrochemicals production account for 23% of budget income.

All compulsory payments of the oil producing companies consist of general charges imposed on all businesses in the Russian Federation and of industry specific charges imposed exclusively on oil producing and oil refining companies (Table 3)<sup>19</sup>. The major part of tax burden of the oil producing companies consists of MRT and export duties, which share accounts for 90% at oil price circa 90\$ per barrel within the structure of taxes and charges.

Mineral Replacement Tax (MRT) is stipulated by Chapter 26 of the Tax Code of the Russian Federation that came into force on January 1, 2002. In addition to it, the earlier deductions for rehabilitating the mineral raw materials base have been abolished together with some other payments for using subsoil deposits and mineral oil excise taxes. MRT is one of the most important charges paid by oil companies to the budget of the Russian Federation. The rules for calculating the tax, the amounts exempted by the state affect the economics of particular businesses and Russian economy in general.

Since the enforcement of Chapter 26 of the Tax Code of the Russian Federation and until 2005, MRT for hydrocarbons went in full to the budgets of the regions where the production was located. Within the period since 2006 until 2009, budgets of relevant regions received just 5% of the calculated tax, while 95% of MRT was used to form the federal budget. Since the beginning of 2010, MRT feeds in full into the federal budget and it is classified as belonging to federal taxes and charges. The formula for oil MRT rate calculation takes into account the average Urals oil price and the ruble currency exchange rate.

Principle advantages of MRT, from the prospective of the state, are the administrative simplicity and considerable amounts of payments; the major disadvantage of MRT is its referencing to the world prices. Since January 1, 2007, oil extraction MRT rate was determined depending on the export oil prices and on the degree of the field depletion.

On January 1, 2012, to calculate the barrelog tax rate, a factor was introduced describing the amount



**Table 2.** Returns of taxes, dues and other statutory payments to the budget of the Russian Federation by types in 2014, RUB bn<sup>3</sup>

Indicator	By core business activities	Crude oil and petroleum (associated) gas production	Petrochemicals production
Total, including:	12,606.29	2,581.35	320.26
Federal taxes and dues, including	11,233.09	2,512.16	305.31
corporate tax	2,294.14	252.88	24.26
individual income tax	2,688.69	22.19	9.01
value added tax (goods and services)	2,300.82	50.22	43.83
Excise on sub-excise goods	1,010.38	40.82	313.99
Taxes, dues and regular payments for the use of natural resources, including:	2,908.70	2,146.06	1.89
mineral replacement tax	2,904.12	2,145.96	1.87
Regional taxes and dues, total	752.85	49.52	13.13
property tax	634.61	49.14	13.06
transport tax	117.49	0.38	0.070

**Table 3.** List of statutory taxes and payments in oil industry

Industry specific taxes and payments	General taxes and payments
Mineral Replacement Tax (MRT)	Value Added Tax
	Corporate tax
Crude oil and petrochemicals export duty	Social insurance contribution
Nonrecurring charges for bidding (auctions)	Property tax
Excise duties on petrochemicals	Transport tax
Regular levies for the use of natural resources	Other taxes

of the reserves in any particular field of deposits. Next amendments to the barrelage tax rate formula have been introduced in 2013; since then the calculation formula includes the factor characterizing the degree of complexity in oil production (type of productive sediments, field

permeability and ultimate effective oil-bearing formation) and the factor characterizing the depletion of particular hydrocarbon field.

The last amendments to the barrelage tax rate calculation formula have been introduced in 2014. The new formula includes a factor describing the region of the oil production and the oil properties. Thereat, in 2016 MRT base rate amounts to 857 rubles per metric ton and by 2017 it is supposed to be increased up to 919 rubles per metric ton.

Crude export duty has been adopted in Russia in the beginning of 1992. According to the law "On customs tariff", the crude oil export duty rate is established on monthly basis taking into consideration the average price for Urals oil at the world oil-stock markets over the last period of monitoring which commences on the 15th day of each month and lasts until the 14th day of the next month; the rate becomes effective on the first day of the calendar month which follows the accomplishment of the monitored period. Crude export duty is charged if the world price for Russian oil is USD 15/barrel or higher. At the same time, as the world oil prices grow, the share of tax exaction also grows progressively.

In all, it should be noted that the taxation system in Russia is changing continuously. Provided that, given the depletion of the mineral resource base, the issue of attracting investments for developing particular oil fields is of paramount importance; however, this can be done effectively only by means of establishing certain tax advantages and preferences.

Studying foreign systems of taxation, it was found that the most widespread forms of taxation in mineral industry are represented by royalty or similar taxes on extraction. Table 4 represents generalized description of taxation in oil industries in a number of developed countries.

Here, the oil business taxation system includes a scheme of incentives envisaging temporal, full or partial tax exemptions for the fields that are at the early or at the late stage of development; for the fields exploited under extreme climatic or natural conditions; for the fields bearing anomalous types of oil (high-viscosity oil, sour crude oil, acid oil, paraffin oil, etc). Thus, by applying flexible system of tax exemptions and preferences, this policy encourages businesses to operate under initially unprofitable conditions.

For a long time, taxation of oil producing companies in Russia gave insufficient account of differences existing in geological and geographical, infrastructural and other

**Table 4.** Taxation of oil producing companies abroad<sup>21-24</sup>

Country	Peculiar features of taxation in oil industry
USA	Producing oil and gas, the companies pay industry specific taxes and dues as follows: royalty, within the first five years the rate is 12.5%, then it makes 15% (economic based limitation is applied, i.e. the tax is lower for less profitable fields); payments for damages to environment caused by oil blowouts (3 cents per one barrel of produced oil); corporate tax (maximum rate for this tax has been cut from 46% to 32%)
Canada	Producing oil and gas, the companies pay industry specific taxes and dues as follows: royalty is charged applying progressive taxation scale: its rate increases if the oil prices grow and/or if the well production rates improve; the formula for calculating the royalty also depends on the category of oil: old, new or tertiary (extracted from the deposits discovered before 1972, after 1972 or after October, 1, 1992 accordingly); deductions for mineral resources preservation and reproduction and payments for the use of natural resources; federal tax on profits amounting to 26.5%; from this amount 10% of regional profit tax are deducted if the profit is obtained in some particular province
Norway	Producing oil and gas, the companies pay industry specific taxes and dues as follows: corporate tax and special tax. Corporate tax rate amounts to 28%, special tax rate makes 50%. Taxation base is calculated based on normal prices. Normal price is a reference market price for Norway crude oil that should correspond to the price at which this oil could be traded between independent parties on the free market. Until 2006, royalty payments have been applied at the rates from 8% to 16%
Great Britain	Producing oil and gas, the companies pay industry specific taxes and dues as follows: tax on oil income is “enclosed” within corporate tax, and an extra payment. Petroleum revenue tax is charged at the rate of 50%, the taxation base is calculated for each particular field separately. In 1993, it was abolished for some fields. Petroleum revenue tax reduces the taxation base of the corporate tax and extra payment. Corporate tax is charged in accordance with progressive taxation scale, base rate for revenues from oil production amounts to 30%. Extra due is 20% since January 2006. Taxation base for extra payment is practically the same as that for the corporate tax. In addition to the abovementioned taxes and dues, until 2003 the oil producing companies also had to pay royalties at the rate of 12.5%

conditions of production or of the quality of the extracted oil. As mentioned above, today great attention should be paid to the continuous amendments introduced to the taxation system in oil production sector. Those amendments are focused on streamlining the funds coming into the budget of Russia and on ensuring stability in oil production and sales at both external and internal markets.

#### 4. Discussion

However, notwithstanding all the adopted amendments, the existing taxation system in this country requires further improvements, especially in the sphere of implementing capital-intensive projects with high operation costs (Table 5):

- Now in Russia circa 500 fields belong to the unallocated subsoil reserve fund, a considerable portion of which is represented by the smallest fields with the capacity of less than 0.5 million tons. Total reserves of 86 prospective fields amount to 247.5 million tons by C1 category and 274 million tons by C2 category. In West Siberian region, about 75% of fields of the unallocated subsoil reserve fund are located with the average amount of

reserves of 9.9 million tons each; in the Urals-Volga region, there are 37 small but promising fields with the reserves of just 2.7 million tons. There are many small fields in Samara, Perm, Orenburg regions. To develop such fields, strong tax incentives should be applied in terms of reducing MRT rates.

- No measures are taken within the existing taxation system to stimulate geological exploration.
- The existing system of taxation makes it impossible to produce oil with regular profit until full depletion of the field. Differential rent payments, according to many experts, are the prerequisites for the rational use of the subsoil deposits and they could ensure relatively equal competitive opportunities for the producing companies if some obligatory preconditions for calculating those payments are duly stipulated. The tax rates should be aligned with the process of the field development (with the stages of development) and the individual approach should be exercised towards the projects targeted at developing the fields located in different geological, physical and geographical environments with different quality of oil reserves and as a consequence, with different efficiency and profitability<sup>20</sup>.

**Table 5.** Areas of improving taxation system for oil producing companies

Priority areas of developing oil industry	Legislative disadvantages	Suggested measures	Objectives of suggested measures
Developing small and smallest oil fields	No differential approach is applied to calculating tax payments (Mineral Replacement Tax rate takes into account the size of a deposit until some certain degree of depletion is achieved)	Tax remissions in calculating MRT rate for each particular field, identifying subgroups of fields depending on the amount of oil produced	Encouraging the companies to develop the unallocated subsoil reserve fund, ensuring extra budget revenues
Stimulating the prospecting and exploration activities in Western and Eastern Siberia in the unallocated subsoil reserve fund	No tax incentives are in place for the companies undertaking the Prospecting and Exploration Activities (PEA)	Partial deduction of the amounts spent on PEA from the corporate tax taxation base, provided that such activities are followed by actual production	Attracting investments in reproducing minerals and resources
Developing the fields with hard-to-recover reserves and the deposits located in complex geological and business environment	No tax incentives for the companies applying innovative technologies	Applying different MRT and export duty rates; special taxation scheme	Implementing innovative technologies
Developing remaining oil in place, improving oil recovery factor	No differential approach is applied to developing oil fields at different stages	Tax incentives for MRT and corporate tax rates for the fields that are at their advanced stage of development	Improving oil recovery from subsoil resources
Developing regions	Major part of tax payments goes into the federal budget	Introducing regulations to redirect the federal tax payments to regional budgets	Distributing tax payments between the budgets

- Today, tax policy is focused on maximizing the monetary flows into the federal budget. The existing legislation and standards are not aimed at creating solid financial foundations for developing those subjects of the Russian Federation where oil is produced.
- Developing the fields with hard-to-recover reserves and the fields located in complicated geological and business environment will make the companies invest huge money in innovations, thus turning such projects into capital-intensive enterprises running at high operation costs. Here, incentives could be introduced in the form of differential MRT and customs duty rates or by establishing special taxation scheme.
- The initiative on creating the tax mechanism based on calculating the Income-Added Tax (IAT) for hard-to-recover oil deposits and for the fields where development is complicated because of insufficient and deficient infrastructure. According to governmental analysts, the shift to the new taxation system will provide sufficient incentives for oil companies to invest in developing such fields. However, other experts believe that shifting to IAT is not advisable;
- Preparing the draft law aimed at improving tax and customs legislation, envisaging a number of amendments pertaining corporate tax, Mineral Replacement Tax and the customs duties to reduce the tax burden in developing hard-to-recover oil deposits.

Russian government has been proposing different initiatives in terms of introducing amendments to tax legislation that are supposed to facilitate solving the abovementioned problems. In the authors' opinion, among the most important initiatives the following ones should be highlighted:

## 5. Conclusion

The results of analyzing such aspects as foreign practices in oil sector taxation, the stages of developing tax regulations in oil sector in Russia and the key characteristic

features of modern taxation systems enable to draw the following conclusions:

- Basic directions of developing oil industry in Russia include stimulating the prospecting and exploration activities in Western and Eastern Siberia in the unallocated subsoil reserve fund, developing small and smallest oil fields, offshore wells, hard-to-recover and sediment deposits, improving oil recovery factor.
- Developing oil-producing sector under current conditions stipulates the need to introduce further improvements to the taxation system applying differentiating approaches and taking into account foreign practices.
- Developed countries, taxation systems in oil industry are notable for profound differentiation existing between principal rent taxes depending on such factors as the stage of the field development, climate and natural conditions, oil price, well efficiency, etc. that provides incentives for the subsoil deposit users to develop the fields located in unfavorable environments and ensures the constant flow of tax payments into the budget.
- Initially, taxation system in Russia did not envisage any incentives for investing in the fields at early stage of development or for maintaining the production at severely depleted fields. In that context, soon upon adopting MRT, different tax exemptions and benefits have been adopted: tax holidays for remote regions and reducing factors for calculating MRT rate at depleted fields, some premiums for producing high-viscosity oil, for small fields, for hard-to-recover deposits (extremely high viscosity index oils, low-permeability and complex reservoirs, separated oil measures).
- Nevertheless, taxation system in oil industry has to be improved in terms of establishing systematic differentiation in tax payments for the companies developing small and smallest fields, exploiting the fields at the late stage of development and for the companies implementing innovative technologies.

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