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Alternative Investment Regimes for  
Direct Foreign and Domestic  
Investments in Russian Subsoil

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# **Alternative Investment Regimes for Direct Foreign and Domestic Investments in Russian Subsoil**

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## **Introduction**

This paper examines evolution of the Russian investment regime in the subsoil in its both key – legal and tax - components starting from the very beginning of post-Soviet Russia in early 1990-s and till nowadays. We will discuss what are the prospects of its further development on a “slightly different” (or alternative) basis compared to that one which exists today.

Why I am raising and discussing this group of questions? It has been taken for granted that current Russian investment regime in the subsoil is not supportive (if not prohibitive) for project investors and project financiers, non-dependent whether they are of domestic or foreign origin. Basically no major investment project can be developed on the basis of “general” rules and conditions of Russian law, especially in the Greenfields areas, without special concessions which have been usually given on a case by case basis by individual Government decisions & corresponding ordinances. This does not provide nor adequate legal stability for the investment projects, not adequate flexibility for the Russian investment regime, incorporated in the law, to stimulate investors to invest in long-term, capital-intensive and objectively risky energy-producing (subsoil) projects.

In the nineties this author had the privilege to head the group of Russian experts with whom we have been developing a legislation on production-

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sharing agreements (PSA legislation) in Russia based on the understanding that this country is so big and its natural conditions, including the subsoil, are so diverse, that it is impractical to have only one unified investment regime with the same rules for the subsoil use throughout the whole Russia.

The difference between the oil and gas fields (geology), between the oil and gas areas (geography) is so big that it would be practical to find the best combination of different investment regimes, based on international experience, that will most effectively address the issue of the resource-rent monetization, collection and distribution between the host-state who is a resource-owner and investor who is a subsoil-user at specific fields located in the specific geological and geographical conditions. That is why when in the mid-1990-ies we (the group of drafters) have been introducing in Russia an alternative investment regime in the subsoil based on PSA, it was developed as only one single element of the more diversified structure of investment regimes (within the proposed menu of multiple investment regimes) in the Russian subsoil. So PSA at the very beginning was intentionally proposed as an additional investment regime – an alternative one to already existing at that time (since 1992) licensing regime based on the Law “On the Subsoil” (and not instead of the latter). The basic idea was to organize a sort of competition between investment regimes for the investor which can result in steady improvements in all alternative regimes in the country thus increasing investment attractiveness of Russia for both domestic and foreign investors. This, in turn, should lead to an increase in inflow of investment (and decrease in capital flight) with all its positive consequences and all related positive direct, indirect and multiple (multiplier) effects from the investment projects.

This basic idea in the very early days was supported by Russian legislators. This author is very proud that on February 21, 1992, in his position of the newly appointed Deputy Minister for Fuel and Energy of Russia in the first Russian (Gaidar’s) Government, responsible for external relation and direct foreign investments, he managed to proved to the then Russian Supreme Soviet (predecessor of the current State Duma) to adopt a new article in the Law “On the Subsoil” – Article 12 - which stated that the right for subsoil use can be granted by the state on the basis of different arrangements (read: investment regimes), namely, concessions, production-sharing agreements, risk-service contracts, etc. The idea of multiplicity of regimes that would most effectively address the specific conditions of this or that field was then

supported by the legislators and since then has been existing, at least for some time, in Russian law.

It needs to be clearly articulated that the idea of multiple investment regimes in the Russian subsoil has not yet been agreed nor by the Russian Government, nor by the State Duma, nor by majority of the expert community except for the period 1993-2003 when first the concept of PSA was supported and Presidential decree N 2285 As of 24 December 1993 was issued, and then the Law “On production-sharing agreements” was adopted in December 1995 and came in force in Russia. It was valid until the new tax reform of the early 2000-ies has de facto put an end to an idea of multiplicity of investment regimes in the subsoil in my country. So this is a concept that has been debated in the country for already 20 years with variable success and practical consequences: from maximum support in mid-1990-ies, in the period of low and unstable oil prices, to its almost full neglect in the 2000-ies, when the oil price was going steady high. I do that in some years to come, maybe this concept will become a dominating one again, this time based on the necessity to develop the fields which it is fully impossible to finance under current regime without huge concessions which prove all the imperfections of the existing tax and legal investment regime of subsoil use. The most recent steps of Russian state in search of raising attractiveness of Russian investment regime, aimed at opening for investors of, say, Russian Arctic offshore, just reflect the growing understanding of the inevitable changes in Russian investment regime. The author would like with his paper to provide his input in this debate and, hopefully, again, as in the 1990-ies, in its practical implementation.

The views presented in this paper reflect this author’s views on how the system of multiple investment regimes need be organized in order to obtain a fair balance between the fiscal interests of the state, which is the owner of its natural resources, on the one hand, and the necessity to create adequate stimulus for the project investors and project financiers, both of foreign and domestic origin under the national treatment of investors established by the Russian law, in order to maximize efficient utilization of the Russian subsoil.

### **Projects competitiveness: technical vs. financial costs**

Energy markets require the highest level of the quality of legal regulation since energy investment projects (in comparison with other sectors) have the maximum capital intensity (value of absolute and relative capital investments) per project, longest project lifecycle, longest payback periods, geological risks, fixed infrastructure, and other characteristics which objectively worsen economics of such projects if compared with other industries. Since the beginning of the 1970s, new exploration & production (E&P) projects in energy sectors have been generally located in more difficult natural environments and often in undeveloped regions. This means that, apart from this objective above-mentioned cost increase, the E&P energy projects carry additional burden of general economic infrastructure that needs to be put in place for development of the new regions, which further spiraled the project costs.

The fact that energy investment projects are generally immobile, i.e. they require creation of fixed infrastructure, means that after the launch of the investment process the investor is, in principle, unable to wind down and transfer production facilities, e.g. energy production and delivery facilities, to another country or region, which makes these projects even more vulnerable to a number of noncommercial risks. Therefore, these sectors require a high level of legal and fiscal stability and risk management in the context of very high noncommercial risks of losses of invested or even borrowed capital.

To minimize and diversify the objective high risks (in comparison with other sectors), energy investment projects are primarily financed by borrowed funds (debt financing) rather than internal (corporate) funds. Since the 1970s, mineral deposit development worldwide has been financed predominantly on the basis of the so-called “project (debt) financing” when the majority of project investments are provided by investors using borrowed funds secured (collateralized) for future profits to be generated by this project during his future project life. The equity/project financing ratio in oil and gas investment projects has changed from 100:0 before the 1970s to 40-20:60-80 in pre-crises periods and to more equal proportions between them during an in-crises times. Thus, the competitive advantages of the investment projects (other factors being equal) are determined not only by the levels of technical costs (production costs), incl. cost of delivery of the manufactured product to the customer, but also by the level of financial expenses associated with investment risks and, therefore, with the cost of borrowed funds (cost of financing).

The main principle of project financing is that the credit rating of an investment project cannot be higher than the rating of the implementing company which, in its turn, cannot exceed the rating of the host country (the one where the project is implemented). With expansion of the project financing implementation area, the share of financial costs (cost of borrowed funds) also grows in overall costs related to energy projects. Project costs became more and more clearly constituted of two comparatively equally important components: technical costs and financial costs. It is a common situation when due to higher corporate and noncommercial country risks a project with lower technical costs proves to be less competitive than a project with higher technical costs (see Figure 1).

*(Figure 1: Investment projects: the role of technical and financial costs in securing competitive advantage)*

For this reason, availability and cost of borrowed funds have become major factors of competitiveness of energy projects whose role has been increasing over time. Therefore, if a country falls into the category of so-called “speculative” credit ratings<sup>2</sup> (usually due to high noncommercial risks), this means that the cost of commercial borrowed funds for implementation of investment projects in its territory becomes too high or inhibitive. It is characteristic of transitional economies to undergo a period of structural decline resulting from the change (frequently in the form of severe destruction) of social institutions and economic development models and related financial crisis (which usually could be rather continuous). Commitment to finance public expenditure usually results in the soaring tax burden on operating enterprises, the most hard usually on those which produce exportable goods. In result these enterprises, as a rule, have no funds left even for simple reproduction, let alone extensive investment programs for innovations and modernization. It only remains to hope for state-guaranteed financing from international financial institutions. But resources of the latter are objectively limited including upper limits for crediting a particular country, usually rather low for high risky economies in

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<sup>2</sup> On the rating scale of major internationally recognized rating agencies, speculative ratings include the level Ba1 and lower at Moody’s, BB+ and lower at Standard & Poor’s and Fitch-IBCA, respectively; investment ratings are Baa3 and higher at Moody’s and BBB- and higher at Standard & Poor’s and Fitch-IBCA.

transition. The main reasons for such narrow opportunities for external financing at the start of transition is a wide range of high noncommercial risks existing in the country.

### **How legislation downgrades costs**

How to reduce the risks effectively? The answer is the adaptation of investor protection and stimulation mechanisms in the energy sector in line with the evolution of energy markets. In other words – improvement of domestic investment climate to make it attractive for investors and their investments. And since, as a general trend, the energy market became more global and competitive within the time frame, and the same is true for the capital markets, which became global and competitive even with acceleration, changes in the domestic investment climate of the host country in question need to be adapted in line, or better with acceleration, compared to its major competitors both at the energy and at the financial markets.

The instrument for this is a law (both domestic and international) aimed at diminishment of non-commercial risks. Stabilization (non-deterioration) and/or improvement of investment conditions by legally binding instruments (both of soft and hard law) bring into action combination of economic and legal mechanics leading to lower noncommercial risks and reduced costs of raising capital (debt financing), with conditioned financial and economic effects for an investor and the host country (see Figure 2).

*(Figure 2: Role of legal instruments for project financing)*

Legislation, inter alia, is an instrument for project financing improvement. Any legislation assures reduction of investment risks and, as a result, decrease in financial costs of project implementation, i.e. in the costs of raising capital or debt financing. This means improvement of prospects to receive higher and/or faster returns on investments, i.e. such projects become more competitive on the capital market. As a result, the country's positive balance of capital flows grows in two directions: through reduction of domestic capital outflow (capital flight) and increase in direct foreign investment inflow, both in the form of investment which are originally

foreign as well as of the investments which has first out-flow from the country due to different reasons and then inflow back but already in the form of foreign investment.

Inflow of capital in the form of direct investments is transformed into more capital investments. Since it is the capital investments who are the carriers of the scientific and technological progress and innovations, a somewhat lagged reduction in technical costs of project implementation also takes place (Figure 2). Both factors (reduced financial and technical costs) ensure an increase in taxable profit which, in case of an adequate fiscal system, results in a higher internal rate of return (IRR). As a result, the project's competitiveness on the commodities market rises, as does the market share of its output (sales). The company enjoys higher revenue and capitalization, lower lending rates, etc. This means growth of tax revenues and royalty payments for the host country and increase in production and non-production expenses within the country.

Thus, investment-related legislation provides directly a multiplier effect on lowering the investment risks with the resulting economic benefits regarding reduction in costs and growth of profits and revenues. Consequently, competitiveness of investment projects rises, with more direct and indirect investment revenues for the host country. Any investment regime has two key components – a legal and taxation facets.

### **What differentiation of investment regime means**

There are a number of fundamental principles that are normally taken into consideration when explaining an ideal investment regime. It need to be simple, neutral, progressive, implement risk-sharing, stability, including grandfathering, etc.

If regime is simple to understand, to implement and to administer, then it is levied on a well-defined tax base. Then it increases transparency and reduces administrative burden, for both administrations and the taxpaying businesses. The more transparent the means by which the government obtains revenues, the better informed the investors are and the less the scope for maladministration or administrative discretion is. When taxation is taken into consideration, a neutral tax should be the aim which will not distort investment decisions, given that it neither deters exploitation of a full range

of field sizes, nor alters project rankings, nor interferes with production decisions.

Differentiation of the regime, from a government perspective, is another desirable feature, whereby the government take (its portion of revenues from the project's pre-tax DCF) increases (decreases) as profitability increases (decreases). Constructing a fiscal regime – in which government take rises automatically or formulaically with rising profitability – gives the host government the predictability of receiving a rising share of any price windfall, while obviating the need for intervention to change the fiscal regime. This also provides the investor with a predictable and stable fiscal framework.

Normal (not ideal) taxation that is related to oil/gas/subsoil needs to have three levels of government takes. First level of taxation - extraction by the state, as the provider of public services which need to be financed, from all the subjects of business activities in all the spheres of economy, a reasonable portion of their “entrepreneurial income”. This is done through the mechanism of profit-tax.

Second level: extraction by the state, as the subsoil-owner, from all the market participants of business activities in mineral-extraction industries (usually: mining and non-renewable energy resource' extraction industries) a reasonable portion of “mineral/resource rent”, i.e. of income generated “by the Nature”. This is done through the mechanism of royalty or similar government takes.

Third level: extraction by the state, as the subsoil-owner, from all the subjects of business activities in mineral-extraction industries a reasonable portion of the “differential economic rent” (incl. windfall profits), which have been received by some subsoil-users due to development of projects located in better natural conditions compared to the projects of other subsoil-users. This is done through the mechanism of special oil taxes with different types of the mechanisms of differentiation.

This is a general scheme of the three-level organization of taxation system in an individual energy-producing state. But to be effective, oil taxation need to also implement what I call “double differentiation”: both between and within individual investment projects.

First type of differentiation is “*between*” the individual projects. It is aimed to consider different natural conditions (geology, geography, etc.) of each individual project, compared to others, for maximum efficient extraction of the differential portion of the economic rent generated by this project. Second type of differentiation is “*within*” the individual projects. It is aimed to consider different stages of oil field development within its investment cycle, through which every investment project has been passing (early, mature, late, fading stage), for maximum efficient extraction of the changing portion of the economic rent in the oil price from one stage of the investment project to another, in order to maximize the long term resource rent collection, aimed both on maximization of rent collection for the host resource-owning state and at profit maximization for the subsoil-using company.

### **Oil field development financial flow diagramme**

The diagramme of financial flows within oil-field investment cycle clearly demonstrates the changing correlation between the flows of costs and revenues within this cycle (see Figure 3). The project revenues are the function of the cost curve and production profile within the time frame. They are evolving through different stages of oil production development: from early stage, when production levels are still zero or just started (1<sup>st</sup> stage), to mature stage, when through speedy growth production levels reach their maximums and stays there (at the plateau) for some time (2<sup>nd</sup> stage), then to late stage when production levels begin to fall (3<sup>rd</sup> stage) and to fading, when production level stays at their minimums and approaching to termination (4<sup>th</sup> stage).

The cost flow curve consists of CAPEX and OPEX curves. CAPEX curve has its clear investment peak at the very beginning of the investment project cycle and another peak in the end, when decommissioning of the project should take place (especially significant in the offshore development). Few other usually smaller CAPEX peaks can appear in the middle of the project life, initiated, for instance, by the enhanced recovery programmes. In the middle of the investment peak of the project its production starts and the OPEX curve commences. In sum total this explains the development of discounted cash flows and net present value curves (DCF/NPV) of the project. The revenue curve also differs depending on oil prices: the higher

the price, the higher is the revenue curve and the longer is the period of economically justified production (period of positive NPV). The area (square) below production curve at Figure 3 equals to cumulative production of the project which, in turn, is equal to the proved recoverable reserves of the field.

*(Figure 3. Financial flows during oil-field investment cycle)*

Figure 3 visually explains the presence of different bases for taxation. Profit-based taxes should be referred only to the period of positive NPV. But royalty mechanism or some gross-revenue-based taxes can be implemented from the very beginning of production while a project still has negative NPV. It is clear, that gross-revenue-based taxes reflect fiscal interests of the host state since provide for tax collection from the very first barrel of oil produced. But this type of taxation is clearly detrimental for the investor subsoil-user since it worsen (delaying) return on investment, increased duration of the pay-back periods and finally make project development more costly (in discounted cash flow terms). But economies in transition or the states facing budgetary problems have been usually seeking for this type of taxation aimed to addressing firstly their budgetary problems. And this is the case of current revenue-based oil taxation in Russia presented by combination of the so-called “raw materials production tax” (RMPT) and export customs duty, which was implemented in the country in the early 2000-ies.

Different characteristic features of development stages within investment cycle of the project predetermines different tax approach at each one of them which will not kill overall investment stimuli for project investors by excessive (non-optimal) taxation at each particular stage of project development. What are the general considerations in regard to investment-related stimuli in upstream oil taxation correlated with specific stages of oil field development under the concept of its efficient (non-fiscal) formation?

At the early stage of the project the tax burden need to be diminished as much as possible since the revenues at this stage are either not yet generated (at the very beginning of CAPEX programme) or are only being generated but at the level that does not compensate the costs yet. So there are the economically justified stimuli to escape as much as possible revenue-based

taxes and to shift tax burden from early to mature stage. The host state can present a spectrum of instruments such as tax holidays, tax credits, tax-related uplifts, etc., aimed at shifting tax burden to the later development stages of the project.

The next, mature stage of project development generates a bulk of profit for both the company-subsoil user and for the host state–resource owner. In this case to optimize resource rent collection a sliding scale of taxation should be used linked to the factors of mineral rent formation. This will enable project-to-project differentiation in resource rent collection since it is at this stage that the difference in generated economic rent by different projects would be the greatest.

At the late stage of project development reserves depletion allowance, dependent on system of factors can be used, reflecting the diminishing volume of production which decline can be only slow down by increasing OPEX and/or incremental CAPEX into costly enhanced recovery methods and technologies. And this approach should be further implemented at the fading stage, with up to the zero rates of special oil taxes.

At this fading stage of project development the host state might not even receive any direct fiscal effects (state revenues) in the form of oil taxes, but that will not be to the detriment of the state since it will continue to receive the product (oil and gas) which will feed corresponding technological processes in the economy, the state will save an employment (skilled working places) - the personnel will continue working at the projects and receiving their salaries (thus escaping potential social tensions resulted from unemployment) which will continue providing the cycles of multiplier effects through associated industries, etc.

This is a generalized theoretical scheme of the most effective organization of oil taxation as a key component of oil investment regime. And how it has been evolving in post-Soviet Russia? It started with the development of the licensing regime based on the Law “On the Subsoil” and has passed through six major periods (see Figure 4). Let’s examine some key developments.

*(Figure 4. Major periods of oil taxation development in Russia)*

## **Licensing oil tax regime of the 1990's**

New oil tax system was developed to represent the changes from the administrative Soviet-style state economy to the market-oriented economy of the post-Soviet Russia. This was to be characterized by a number of radical shifts in natural resource management:

- from 100%-owned state oil business to private (yet to be privatized) oil companies,
- from “horizontally”-responsible separate Soviet ministries (exploration, production, transportation, trade, refining, etc.) to full-cycle VIOCs,
- from free-of-charge subsoil use to chargeable use of the subsoil,
- from “indirect” taxation of Soviet-style (administratively diminished domestic energy prices, calculated on cost-plus/cost-minus basis, and state monopoly on external trade) to direct taxation of oil operations combined with liberalization of domestic prices and liberalization of oil exports, plus to introduction of export customs duties (aimed to balance the gap between the yet lower domestic and higher export prices).

At the very beginning of the system transformation in the early nineties the Russian state faced severe financial crisis. That financial crisis presented economic consequences of collapse of the USSR. At the start of transformation the state usually faces budgetary problems (if not crises) due to diminished state incomes and increased demand for state social spending (to support increased numbers of unemployed, etc.). Private finance has not been yet developed at that time and Russia faced a strong budget deficit in the early nineties. The country did not possess any financial ratings at that time which means that private international money were not available or if available than under extremely high interest rates. International lending was mostly provided by international financial institutions or through technical aid programmes, which resource were rather limited and the procedures rather lengthy. They were provided under state sovereign guarantee and thus were accompanied by policy sections which determined to undertake market-oriented reforms which in the period of rather weak state (which is the case of any early days of system transformations) was difficult to implement. This is why it was a strong demand for a fiscal oriented oil taxation within the Government circles since it was considered that oil is a marketable good in any case and under any circumstances. So it was

considered that the oilmen should undertake an incremental tax burden since their product possesses “natural competitiveness”. In result, this fiscal component of taxation was given a prior attention.

In the very early 1990-ies there were strong debates between fiscal-oriented (Ministry of Finance, State Customs Service, etc.) and investment-oriented (Ministry of Economy, Ministry of Fuel and Energy, etc.) Ministries on configuration of oil investment regime, including its tax component.

At that time I have been working in the Ministry of Fuel and Energy as Deputy Minister responsible for the external economic relations and direct foreign investments and was an active participant of these debates. Our message to our friends, colleagues and opponents in the Finance ministry and other fiscal agencies was rather simple: of course, the state can increase its fiscal pressure on the business (the state business that was being intensively privatized, and private one which was in its infancy) but by doing so the state can just kill investments stimuli for the potential strategic project investors since the risks in the emerging (transition) economy are too high for them. One needs to find appropriate balance between fiscal (anti-investment) and pro-investment parameters of the investment regime and its tax component in order not to destroy investors inclination to invest in objectively additionally risky investment projects in the subsoil, especially when major part of energy resource development in Russia is located in the marginal and remote areas. We tried to explain that the state should stimulate today’s investment by all available means (incl. tax holidays and other instruments to diminish tax burden at the early and most capital-intensive stages of the investment projects – see above) in order to provide opportunity for bigger tomorrow’ state revenues. But the intention of the Ministry of Finance was not supportive to our approach and we finally lost. So it was mostly fiscal oriented system that was finally created. Our fiscal oriented friends have won the battle.

But nevertheless, at this starting point of its establishment, oil taxation system in Russia has provided opportunities for at least limited differentiation in tax pressure on individual projects. This was undertaken through the establishment in the law “On the Subsoil” of the corridor of royalty payments which were established individually by the state in a unilateral manner on a project or regional basis at bidding procedures. Spread-over of royalty percentage was established within a corridor from 6 to 16% of production volume with payments in monetary terms or in nature

(ongoing debates to expand it to 0-16% corridor have not materialized into law). This gave an opportunity to differentiate the tax pressure of the most “capital prohibitive” revenue based royalty payment. When during oil taxation reform of 2000-2001 royalty payment was substituted by MRPT, differentiation of taxation in licensing (subsoil use based on administrative law) ceased to exist.

### **Consequences of fiscal system**

The system of oil taxation that has been created in the early 1990-ies reflects all (originated by objective reasons) negative features of the starting phase of the economy in transition which faces strong financial crisis.

First of all, it was established as a revenue-based, and not as a profit-based system. This creates an incremental tax burden on the project investors (as all revenue-based systems do). But on top of this, at some point of time at low price period (when at end-1990-ies the oil prices dropped to their historic low margins in result of Asian crisis) sum-total of unit value of costs and taxes for the companies has exceeded the level of oil price (see Figure 5).

*(Figure 5. Gross revenue and full production costs of Russian oil industry in the second half of the 1990-ies)*

Development of new Federal Russian State consisting of 89 subjects has stipulated their fight for greater economic autonomy, especially since all these regions were historically dependent from the state Center through the programmes of state transfers. Break-down of the economic links between former USSR republics (now independent states) and weakening of the state power within Russia itself has almost nullified inflow of state budgetary finance from the Center to the regions. This is why a lot of Russian regions began to develop their own taxes in order to increase their tax incomes. It was a period of permanent increase in tax nomenclature at local, regional and federal level. According to my calculations, top number of different oil taxes and duties has increased on all levels up to 47 in the second half of the 1990-ies. But as well known from the theory and international practice, the increase in number of taxes and/or of effective tax rate does not mean tax

collection will continue to increase. After effective tax rate exceeds critical level (individual in different states) the effective tax collection began to diminish – well known effect of Laffer’s curve (see Figure 6). Inclination of tax-payer to pay their taxes in full has been radically diminished since, on the one hand, the taxpayer is facing the risk of non-payment (which is illegal) with the prospect of economic survival, but on the other hand, he face the risk of being a legal tax-payer and becoming a bankrupt. This has led to a huge increase in non-payments in mid-1990-ies.

*(Figure 6. Dynamics of expected and factual tax collection with the growth of effective tax rate (effect of Laffer’s curve )*

But under excessive taxation investor usually has a very limited choice to do its business. It faces a very narrow corridor of behavior between the Scilla of violating the law in order to survive economically and Harribda of being law-abiding but becoming a bankrupt (see Figure 7).

*(Figure 7. Possible options of investor’s behaviour within restrictive tax environment)*

So by the middle of nineties Russia has been facing a strong problem of low tax collection and non payment. My strong conviction is that it was a result of the above-mentioned fiscal oriented tax system that has been earlier developed. It was a combined result of fiscal orientation of state authorities originated from the budgetary problems that the state has been facing, factual “region’s partial tax sovereignty” when the regions (with the aim of central government to politically cement the federal state) were given the ability to introduce their own taxes, duties, levies on top of federal taxes. This diminished greatly efficiency of tax administration and lack of transparency within taxation system.

**“Stabilization clauses” and “price of instability”**

Some regulations were just rather contradictory since different state bodies initiating them have competing interests and the relatively weak state at that time has faced major difficulties to balance growing spectrum of tax initiatives on all the levels. Different ministries, different regions were developing different kind of administrative things that were not common with each other. That means no stability, no predictability (see Figure 8). That de-stimulated new investments. If one will follow the logic of legislators in dealing with such important component of each investment legislation as the clauses providing stability of the investment projects – so-called “stabilization” or “grandfathers” clauses, he will see rather radical shifts in legislator’s attitude to this aspect of legislation with huge fluctuation in the duration of “stabilization clauses” provided by different legal acts which entered into force throughout the 1990-ies. One characteristic feature is that all public law regulatory acts have been establishing duration of stabilization clauses, valid, inter alia, for the projects in the subsoil as well, to the period which is less than the pay-back period of the project. The fixed term of “stabilization clause” of less than 10 years (7 years since end-1990-ies), which count-down usually starts with the beginning of investing into the project, means that it does not cover the combined duration of investment period and pay-back period, which means that investor basically does not receive adequate guarantees that he will return his money which he wish to dig up into the Russian subsoil. Only civil law instruments developed in the 1990-ies such as PSA instruments provided adequate legal stability for investors since they gave him “stabilization clauses” by the law equal to the whole project life.

*(Figure 8. Duration of the stabilization (grandfather’s) clause in Russian investment-related legislation)*

In addition, this system with a lot of internal contradictions in it, with conflicting interests of different agencies with their legal initiatives, has just destroyed existed investment projects based on “project financing” principles (mostly in the form of JVs) that were developed since late 1980-ies. All of them have appeared after the then USSR Government Ordinance “On relations with Foreign Investors” was issued in January 1987 opening the door for foreign investment in the USSR and then in Russia. But they were not adequately protected from the legislative changes, especially from

the growing number on new taxes and duties, being introduced in Russia in early/mid-1990-ies within the licensing system of subsoil use.

Good illustrative picture on this negative results is provided by the calculations done by Russian association “Assoneft” which unite small and medium oil enterprises (which number reached its maximum of 104 in early 2000-ies), mostly non-integrated oil companies, which possess in their subsoil use usually only few (down to a one single) licenses, and which are based mostly on the “residuals” of the former JVs destroyed in the 1990-ies by the evolving oil taxation under licensing system without adequate, compared to Western standards, legal protection against such changes in taxation (lack of or not adequate “stabilization” clauses).

Calculations were made on how NPV curve for 39 projects will be developed if the tax conditions of 1992 were in place trough the 1990-ies, on the one hand, and taking in consideration the real annual changes in oil taxation in Russia, on the other hand (see Figure 9).

*(Figure 9. “Instability price” of the Russian oil tax legislation  
(for a group of non-integrated oil companies))*

Due to constant oil tax increase the CAPEX has diminished and OPEX has increased in mid-1990-ies. This means that development of Russian oil taxation system has stipulated short-termism and de-stimulated new oil investments. And that has taken place in the period so critical for developing in the country of the stable basis for generation of state revenues (stable and expanding tax base). Instead of this, for the group of such project-based companies, their cumulative negative NPV has increased almost 2-fold in the 1990-ies.

If the oil taxation system established in early 1990-ies would stay the same and would not be changed through the decade, then towards 2000 these projects will reach positive NPV zone. But in result of more and more intrusive character of the taxation, the point of entering the positive NPV values moves for these companies further and further away in time. Throughout this decade, the square above the initial NPV curve (corresponding to the tax system of the 1992), on the one hand, and the square between this curve and the “new” NPV curve (corresponding to the

level of factual oil taxation in each year of the period), on the other hand, are almost equal. This means that (what I would call as) “instability price” equals almost 100% during this period. That has killed then existing JVs established on project financing basis.

So, these were the developments of the turbulent 1990-ies.

### **From Eltsin to Putin: “pendulum effect”**

During the USSR times with its strong centralized power, the regions had no power (nor political, nor economic) and no non-state business existed at those times as well.

In the Yeltsin times regional economic policy was driven by the intention of the rather weak Federal Center to obtain political loyalty of the regions by providing them with additional economic liberties and partial economic independence from the center, including in tax establishment and tax collection. One of the famous Yeltsin’s slogans of the early 1990-ies addressed to the regions was “Take as much sovereignty as you can handle out” (see Figure 10). This has led to increasing number of taxes and tax burden on the taxpayers. On the other hand, “big” domestic business was also growing with the understanding that those future oligarchs and key businessmen were allowed to privatize state property in exchange for their political and economic support of the new state power that was still in its infancy and always short in finance. These new loyal businessmen were also given big concessions (also tax concessions) despite the growing overall tax pressure on domestic business in general.

*(Figure 10. Evolution of state economic policy in Russia – a “Pendulum effect”)*

On December 31, 1999, Russian President Boris Yeltsin gave over his state power to Vladimir Putin. Some rather radical changes in economic policy, investment climate and oil taxation took place after that. I call them a “Pendulum effect”. We know that pendulum is usually working by passing

through point of neutrality and deviating consequently from this point first to one and then to opposite direction.

The most important changes from the very beginning of the 2000-ies were the reverse changes in balance of powers in favour of the federal authorities compared to regional ones – the well-known development of “vertical of power” in the 2000-ies (the pendulum started to move back within the X-axis) and towards making oligarchs equidistant from the state (return movement of the pendulum within Y-axis).

### **Licensing oil tax regime reform of 2000-2001**

In 2000-2001 a new tax reform came out. The major idea of this reform in oil was to liquidate transfer pricing within oil industry. This was needed in order to increase tax collection since major VIOCs have been broadly using transfer pricing to move their profit centers from the oil producing regions to tax havens (both foreign and domestic offshore zones) with the aim to escape paying royalties and production taxes at the well-head. This was one of the reasons for movement from ad valorem tax calculation to specific flat rates under tax reform.

To some extent this movement away from transfer pricing was based on the well-known historical experience of the pre-1970-ies international oil industry. At those times major international oil companies (mostly the companies of the International Oil Cartel – so-called “Seven Sisters”) have been working internationally through the system of concession agreements with developing countries in the Middle East, North Africa, Latin America, Far East, while in these resource-rich producing countries production assets of VIOCs were located but the centers of profits of these VIOCs were placed in their mother-states. By using the system of undervalued posted prices (which were defined as the pre-tax price on a cost-plus basis linked to the internationally lowest costs of oil production in these regions) major international VIOCs have been downgraded their payments (taxes and royalties) to the host countries. At the same time, by using transfer pricing mechanism these VIOCs have been transferring their profits to their mother-states.

Russia has been facing in the 1990-ies/early-2000-ies similar situation as OPEC states in pre-1970-ies: almost all (if not all) Russian VIOCs have been transferring their profits through the system of transfer prices from the area where the oil was produced (from the well-head) and where the resource taxes were present (like royalty and geology tax, so-called “VMSB”<sup>3</sup>) to other regions where this resource taxes did not exist and/or where regional taxes were lower due to different reasons. Such regions provided opportunities for the companies to generate higher profit due to the lower level of regional taxes and regional portion in federal taxes compared to oil production regions. So a number of Russian VIOCs have been placing their profit centers in such tax havens.

Another aim of tax reform was to ease tax administration: natural intention to diminish number of taxes (remember above-mentioned figure of 47 different taxes, duties, levies, etc. on oil producers?). The fair idea was to combine taxes that have the same pre-tax base, for instance, to unite together all revenue based taxes. i.e. to substitute a number of “similar” taxes by the single one with retaining the same tax pressure on tax-payers. That led to increasing transparency of tax system and its simplification. Simplification and transparency of the tax system was a major driving of the reform, but this has its pros and cons, especially if competitive balance between efficiency and simplicity of the system is lost. The then Russian Minister of Economy (current President of Russian Sberbank) G.Gref has been trying to simplify system tax system as much as possible. The idea behind that was that it will diminish corruption on one hand, and on another, it will be much easier to monitor, to control and collect taxes. From my view, excessive simplification of the Russian subsoil tax system based on MRPT with the flat rate (I will even call it primitivization – this will be discussed later), leads to the decrease in efficiency of subsoil use taxation and is detrimental to the state if both direct, indirect and multiplier effects are taken into consideration.

One other driver of the tax reform was to improve “vertical power” of tax collection in Russia (further to and in line with the “vertical of (political) power” that was being built at that time): the idea was to redistribute tax revenues allocation in favor of thus growing federal share and by this to increase centralization of tax collection and decrease region’s possible motivations for self-dependency and autonomy. De facto this was the shift

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<sup>3</sup> VMSB (geology tax) = duty for reproduction of mineral resource base

from “strong regions means strong Russia” principle of the Eltsin time to totally different (even opposite) principle aimed at de facto creation of “more dependant regions on economic transfers from the federal centre”. This clearly reflected the above-mentioned “pendulum effect” (Figure 10).

Improvement of “vertical of power” has led to the denial of the “two-keys” principal which was one of the underlying principles of the Law “On the Subsoil”. This initial principle has meant that the federal state authority and the corresponding regional authority hold two keys for subsoil use – each authority holding its own key. This means that all decisions on subsoil use, like issuing a license for subsoil use, need to be signed by two authorities simultaneously and no one of the two possess a decisive power without the other one. Instead of the “two-keys” principle, the “one-key” principle was introduced which has put to an end splitting revenues and responsibilities between the state and regional authorities and both former two keys since then has come into one single hand of the central power, including – which is most important – tax collection.

The aim of this was two-fold. Firstly, this was aimed to extract higher portion of economic rent from oil-producing companies and to redistribute it through the federal budget to priority areas of government spending. This reflected the beginning of new period of increasing state role in the economy after the period of the 1990-ies when the state was diminishing its direct presence in the economy. Secondly, this means centralization of tax collection in the federal state hands. The role of the regions in the state power had thus decreased as well as their possible endeavours for self-dependency and autonomy since one can’t be self-dependent and autonomous when he is dependent on the transfers from state budget and not, at least partly, on its own flows of revenues and/or local taxes. So centralization of tax collection has been developing economic background for improvement of vertical of power (Figure 9). Simplification of oil taxation was an important component in this policy, aimed at extracting higher portion of economic rent from oil producing companies and at redistribution it through the federal budget into priority areas of government spending. At that time it was still considered to be possible (as was in mid 1990-ies) through such redistribution of oil revenues to provide, inter alia, for “modernization manoeuvre” and to finance innovative non-oil industries by government spending of petrodollars.

## Flat-rated MRPT

Tax reform of 2000-2001 has reflected major changes of the economic policy of Russia and organization of its taxation system. First of all it was aimed to codify all taxation activities and to put them under one umbrella of the different chapters of the Tax Code devoted to individual taxes. Regarding subsoil use, two chapters of the Tax Code should be mentioned: Chapter 25 (2001) on the Profit tax and, especially, Chapter 26 (2001) which introduced Mineral Resources Production Tax (MRPT) with the flat rate which has substituted three other previously existed taxes on subsoil users: royalty, geology tax (VMSB) and excise tax.

Key element of this system was the MRPT. This is a flat rate tax which is linked to fluctuations in international prices non-dependent whether the taxpaying company producing domestically (and thus being a subject to MRPT) has been supplying its oil produced only to the domestic market, or it possesses an export quota and is being an exporter. Non-dependent on this, MRPT taxation is linked to international oil price (see Figure 11). So, the higher is the international price, the higher is the flat rate of this domestic tax.

*(Figure 11. MRPT (NDPI) rate vs. oil price)*

What are the negative consequences (major deficiencies) of this flat rate system? Why, from my view, MRPT is not good for the host state from the long-term economic perspective (though it is a simple, straightforward and effective pure fiscal instrument). What does the state lose in this case? And who wins instead?

Let's distribute all the fields in the country through the X-axis from left to right by diminishing percentage of the mineral (resource) rent in the oil price. The biggest, the youngest (at the earlier stages of production) fields will be located in the left, the oldest, at the late and fading production stages, the most expensive fields will be located in the right. Flat rate MRPT will cut off the fixed absolute value of rent from every field (see Figure 12). The cross-over of two lines and perpendicular from this crossover point down to the X-axis will show the cut-off volume of reserves (to the left from this point) which development will provide zero-value resource rent - zero rate

of return (ROR). But since no company will develop any project without some reasonable positive ROR (zero ROR is not enough), the number of the fields to be developed will be less (the cut-off vertical line will go further to the left). This type of tax model does, firstly, significantly diminish the number of fields to be developed (only most profitable fields are to be exploited), and, secondly, leave the “lucky” companies that have received subsoil use rights for the most efficient fields (with the highest portion of resource rent in the price) with the abnormally higher portion of economic rent which can be considered as its windfall profit and can be further taxed leaving the company with reasonable ROR and not with extra super-high ROR (Figure 12).

*(Figure 12. Flat-rate oil tax system: why & what the state loose)*

Introduction of MRPT with flat rate has put an end to the initial period of at least limited oil tax differentiation in Russia, organised in 1992-2001 via corridor of royalty payments 6-16% in the licensing regime of subsoil use and by existence of the PSA regime (though at a very limited scale – only three PSA projects – and being strongly suppressed from the very beginning of its existence).

### **Reform of export customs duty**

Another innovative element of 2000-2001 oil taxation reform was reorganization of the mechanism of export customs duty establishment. In the 1990-ies the state has been trying to cut off part of the difference between low domestic prices and high international oil prices by individual state decision provided episodically by the Government Ordinances (see Figure 13). As it can be seen from this Figure, it is very difficult to find some system in these changes (if there was any system at all). It looks like Brownian movement.

*(Figure 13: Export customs duty development in the 1990-ies: chronological development)*

Even if Figure 13 is reorganized from chronological order to the function-of-the-oil-price order, there still no system be recognized in establishment of the value of export customs duty in the 1990-ies (see Figure 14).

*(Figure 14: Export customs duty development in the 1990-ies: oil price related development)*

Very general self-evident trend can be seen at Figure 14: the higher the price – the higher the customs export duty value. But its fluctuations were so unpredictable for the companies and the mechanism of its establishment was so unclear dependent on “personal factor” (individual Government Ordinance has no clear predictable rules behind them), so that was to be changed into more structured and formalized mechanism at some point of the time. Development of such mechanism was one of the positive features of the 2000-2001 oil tax reform (see Figure 15).

*(Figure 15. Evolution of export customs duty mechanisms)*

Improvements of the customs export duty system finally brought it to the type of regular curve which mechanism is since then was established by the law and not by the Government Ordinances as it has been taking place earlier. This provides the highest level of predictability of its values.

### **“Kudrin’s scissors”**

But there is one negative element in this system which was named “Kudrin scissors” after the name of the then Minister of Finance of Russia. Major deficiency of this customs duty mechanism is the following: implementation date of new duty is at the end of two month long oil price monitoring period. This means, that when the oil price is going up it is the state that takes the risks or receives less than it would have been receiving without this two months time-lag. And the higher are the prices and the more rocket-style is their growth – the more the state under-receives in customs duty value. When the price declines - companies are the ones who take the risk of extra

payments. This means that through the most of 2000-ies, at least till mid 2008 when the prices reached their historical top equal to 148 USD/bbl in mid- July, it was the state that has been under-receiving the extra values in customs duties from the oilmen in result of the two months time lag in the mechanism of duty calculation. But when the prices started to go down, the companies were paying more because of such construction of this mechanism.

The role of the time-lag in pricing mechanisms in oil and gas is well known, including from the recent historical past and from today's experience.

Gazprom has its gas pricing formulas in its long-term take-or-pay contracts in Europe whether the price is indexed to a mean average prices of replacement fuels (in Gazprom case in Europe – petroleum products) for the previous nine months. This means that exporter and importer are facing opposite benefits, though flatten out, at the periods of growing and diminishing oil prices. This also provides an explanation why spot prices are usually deviates in its dynamics from contractual prices – the first react to the change in the market immediately, and the latter – with a time lag. So during current oversupply period at the gas market in Europe, Gazprom has its contractual prices higher than existing spot prices in Europe.

Another illustrative example is from oil market and from the USSR times. In the 1970-ies, when oil prices began to rocket up, the USSR was selling its export crude to the COMECON states and the mean average at first through five and then – through three previous year period. This equalize COMECON import oil price level at approximately 2/3 of world oil price. This enabled COMECON states, first, to survive economically due to lower import bills, and, second, to capitalize on this by re-selling extra volumes of crude received from the USSR and/or petroleum products refined from this extra oil at the market price in the West. In the 1980-ies, per contra, when world oil prices went down but the mechanism of establishing export price on Soviet oil to COMECON states stayed the same as in the 1970-ies, leading to extra payments of the latter for their oil import bills, this has speeded up the process of dissolution of COMECON.

Comparison of investment-related stimuli in upstream oil taxation that existed in Russia under licensing system prior to 2002 (when results of 2000-2001 oil tax reform were enforced) compared to post-2002 period shows that most of the changes during this reform were to further diminish investment stimuli that have been partially existing prior to 2000-2001

reform (see Figure 16). This means that post-reform oil tax legislation was even more fiscal oriented than the one in the 1990-s. What has diminished the negative effect of this reform for investors were the growing through the most of decade oil prices.

*(Figure 16: Investment-related stimuli in upstream oil taxation in Russia under licensing system: pre vs. post 2002)*

### **Pro's & contra's of 2000-2001 oil taxation reform**

So what were the major results of the 2000-2001 oil tax reform? Its major positive results were all on the fiscal side of the equation. New tax system based on MRPT with flat rate is rather transparent and easy to collect (due to the flat rate). It “excludes” transfer pricing which in result increases budgetary revenues and provides their higher predictability. This new tax system provided better opportunities to fill in the then newly established Stabilization Fund which helped back then to pay-back fully Russia's foreign debt and most recently to soften for the country the consequences of the post-2008 global economic and financial crisis.

All major negative consequences of the 2000-2001 oil tax reform are on the investment and macroeconomic side. New MRPT-based tax system allows oil companies working in new producing areas and on younger fields (usually being received from the state in the course of privatization/loans-for-shares auctions almost free-of-charge) to earn incremental profits (Figure 12) which are then not shared with the state resource-owner but mostly transformed into shareholders dividends and afterwards in many cases into capital flight. Most of younger oilfields were received by the newly established Russian VIOCs owned and managed by the “new” oilmen, e.g. mostly people originated from the outside of the oil industry, with the short-term financial mentality; for most of them their newly owned companies were mostly financial assets – easily/cheaply received and to be profitably re-sold ASAP (preferably to Western IOCs). Their short term financial interests and fast growing capitalization of the companies were detrimental to the most beneficial long term oil field developments. So MRPT stipulates short-term-oriented management decisions and in the longer run provokes non-recoverable losses of oil in-situ, decreasing recovery rates and

recoverable reserves volumes, diminishment of the economic base for tax collection.

MRPT does not consider natural differences in productivity of oil fields and quality of crudes produced, it deprives the companies working at mature and marginal fields thus creating unfair competition. MRPT deprives small and medium non-integrated companies, which possess 1-2 producing licenses, usually at marginal fields, and which supply oil at domestic market, contrary to VIOCs that possess in their portfolio bigger number of licenses, incl. larger and highly productive fields. MRPT discriminated small and medium oil companies because they supply most of their oil locally, at the domestic market, but they are taxed according to fluctuations of world oil price. Moreover, through their vertical integration structure VIOCs are more protective from the price fluctuations, they possess more diversified structure of the fields in their portfolio, both with lower and the higher portion of rent in the price. Thus VIOCs have bigger opportunities to mitigate the risk – including the risk that has been artificially established by this MRPT-based tax system. Small and medium companies usually possess mostly marginal fields in their portfolios with the lower portion of rent in the price. This makes them less protective from different commercial and non-commercial risks.

MRPT creates prerequisites for involuntary bankruptcy of small and medium companies by VIOCs and their following merger by the latter, and thus for further monopolization of the oil industry, depriving competition. This creates a contradiction from the resource management point of view – optimal corporate structure of the oil industry predetermines that small and medium independents need to exist since it is them who develops older resource base which is of low interest to the majors whose major area of profit making is utilization of economy of scale effects from large-scale complex projects. Ageing of the resource base (when more and more fields are coming to the fading or late stage of the development) demands stimulation of independent oil sector. It is a global tendency that it is usually small and medium companies that are developing these final stages. VIOCs are usually selling their assets to the smaller companies to develop fields at the later stages. But not yet in Russia where VIOCs use MRPT as an instrument to increase their capitalization by putting at their balance sheets reserves of the merged small and medium sized companies.

MRPT stimulates sample development of highly productive fields only. It prevents comprehensive subsoil management and complete extraction of non-renewable energy resources. It deprives exploration, especially in Greenfield areas, etc. So it really provides a lot of long-term negative consequences on investment and macroeconomic side through indirect and multiple effects.

My major conclusion is that MRPT provides simplification and even primitivisation of subsoil payments system in favour of increasing tax collection, but it deprives rational subsoil use and thus sooner or later it need to be radically changed in favour of investment-supportive tax legislation.

From my view, 2006 was the year of maximum strengthening of MRPT pressure. Since then one can see few attempts to stimulate oil investments, which is not yet a development towards multiple investment regimes in Russia (as I would prefer to consider it), but at least some steps towards softening the fiscal tax pressure on oilmen in some most remote areas where MRPT is absolutely prohibitive (see Figure 17). It seems that the state is searching in a “handy management manner” for making individual concessions either for different companies like state company Rosneft, that seems for the state being more equal than other oil companies, or for individual areas like new remote areas in Eastern Siberia where the government would like to stimulate the development of new projects aimed to supply the growing Asian market. But Western Siberian fields that are coming to the fading stages are not receiving the same concessions or the same investment stimuli.

*(Figure 17: Evolution of differentiation of Russian oil taxation regime)*

Since that time onwards some deviations from the unified tax regime in favour of more investment supportive regime can be noticed. In 2007 MRPT allowance for highly depleted (>80%) fields based on good experience of Tatarstan & Khanty-Mansi region was introduced, but proposed MRPT differentiation was neglected. In 2007 and 2009 individual concessions for Greenfields were introduced such as MRPT holidays (up to 7-10-15 years and up to 10-15-25-35 mln tonnes of cumulative oil production per project) in new provinces such as East Siberia and offshore. In 2009 non-taxed by MRPT minimum price level was increased from 9 to 15 \$/bbl, profit tax rate

diminished from 24 to 20%, depreciation premium increased 3-fold, oil export duties cancelled (temporary?) for new East Siberian fields. So the attempts (though rather weak and not yet systematic) to differentiate tax pressure are taking place. But still fiscal equalization spread over the whole country, tax differentiation is still forbidden and no alternatives to fiscal “MRPT plus export duty” concept is foreseen.

So what are the alternatives, if any? My answer is – PSA. But PSA not as the only alternative, but as the most effective alternative, an alternative being a part of the more diversified and integrated system of subsoil management, a part of the system of multiple investment regimes for the subsoil use.

### **PSA history in Russia: ups and downs**

I had the honour to be the Head of drafters of PSA legislation in Russia. It was the time of Gaidar’s second term in the Government. At that time I was not in the Government already but for a short period of time, just for few months that Gaidar stayed as Deputy Prime-Minister and a Minister of Economy, I was his non-staff special advisor on foreign investments. And within this short period of “window of opportunities” we have managed to pass Presidential Decree N 2285 dated 24 December 1993 “On production sharing agreements in the subsoil use” which established major elements of future PSA legislation. Later on with the support of two democratic fractions in the State Duma headed by Grigory Yavlinsky and Egor Gaidar we managed to pass this legislation through the Duma. Since early 1996 PSA legislation exists in Russia, however, due to different reasons it has been left to zero out implementation since the above mentioned 2002 oil taxation reform.

Today Russia has only three PSA projects: Sakhalin 1 and 2 and Hariyaga, all signed before PSA law was adopted and all three grandfathered by this law. They should be considered as the first, though rather small, step towards development of multiple investment regime in Russian subsoil.

From the very beginning in the early nineties my colleagues and me had the philosophy that Russia is being so big and so different in terms of geography, geology and other characteristic features, that it should have more than one universal licensing regime in order to best effectively address

individual conditions of the specific fields/projects with the aim to maximize resource rent extraction and its fair distribution between the host state resource owner and an investor subsoil user.

Thus the best thing for doing so is not to have one regime and then to obtain individual concessions (derogations) from this regime in a handy manner, but to create an opportunity for the investor to choose himself within the given legal framework such regime from their menu which is best available for him from his own (and not someone's else) point of view. And investor should choose from the "investment menu" – a menu of model agreements prepared and approved by the state. It is an investor subsoil-user who takes all the commercial and non-commercial risks developing a field, and it is this investor who knows better what will be most efficient for him to most effectively develop the field.

That is why I have been proposing consistently the system of multiple investment regimes for Russian subsoil use. And thus when I am talking about PSA, I am not proposing it as an alternative (especially as only alternative, i.e. as a substitute) to the existing licensing regime of subsoil use. I have never proposed to substitute all the licenses with the PSAs (which, by the way, was the proposal of Petroleum Advisory Forum (PAF) – association of foreign oil and gas companies working in Russia – in the second half of the 1990-ies when the PSA Law was approved). I have been always proposing that PSA should be developed not instead but in addition to the existing licensing regime. Each one of the investment regimes should find its competitive niche in the Russian oil market. Such niche (and even niches – since I see two specific areas for PSA implementation within the resource spectrum of the Russian oil and gas, see below) does exist for PSA as well.

Let's go through the PSA history in Russia shortly bearing the above-mentioned key message that PSA regime based on the law "On PSAs" was proposed as just a first step in the system of alternative regimes of subsoil use – additional to the existing licensing regime based on the law "On the Subsoil".

Law "On the Subsoil" was voted by Russian Parliament in February 1992. This law was developed mostly by the people from the former USSR Ministry of Geology (predecessor of the then Russian Ministry of Natural Resources). They have an approach based on the view from subsoil owner

perspective that, firstly, it should be one law introducing one type of regime for the subsoil use which will provide big inflow of revenues from subsoil use into the state budget through taxation and royalty. Secondly, behind such approach of consolidated and thus more-easy-to-control inflows of revenues was an idea that part of these revenues should be later reinvested into geological exploration to support diminishing reserves additions and falling R/P ratios (though the latter were in the range of 30-40 years which is much higher than the durations of pay back periods of 7-10 years defined by the cost of capital which determines the minimum appropriate R/P ratio; in the USA, for instance, through the whole XX-th century it was equal to 8-10 years). The idea to differentiate oil taxation was not present in this law until a special article 12 which proposed to diversify contractual arrangements between resource owner and the investor subsoil user was introduced. It was presented by the Ministry of Fuel and Energy just before the voting procedure, and was supported by the legislators voting “from the voice”. I was official representative of the Ministry for Fuel and Energy who was presenting this article as additional to the law “On the Subsoil” and I am very proud that within the debate in parliament with the drafters from the Ministry of Natural Resources and with the legislators I have managed to prove to the legislators that this article needs to be included in the law “On the Subsoil” and that multiple arrangements (and thus multiple investment regimes) would be supportive and favourable both for the host state and investor subsoil user.

So the law “On the Subsoil” has opened in 1992 a window of opportunities to develop multiple investment regimes for subsoil use in Russia, where the licensing regime would be the first (but not the only one and single) element.

The next element to be developed within the “investment regimes menu” was to be PSA because it would have been most attractive at that time for the investors. Russia’s vertically integrated oil companies were only in the process of their creation (Presidential Decree on establishing three first Russian VIOCS – Lukoil, Yukos and Surgutneftegas – was signed in November 1992 only) and afterwards - in their infancy. They were rather weak financially at the beginning, they did not possess financial ratings for some time (first Russia’s sovereign rating has appeared only in 1996), they were not in the position to raise capital on the foreign capital markets on competitive terms in order to develop fields, in order to slow down their declining production, etc. - except through the financing from the international financial institutions backed by the state’s sovereign guarantee.

(This author participated in the early 1990-ies in preparation for the Russian oil industry of the 1 Bln USD First Rehabilitation World Bank Loan and then of the 2 Bln USD revolver-type credit line of the US Eximbank – at that time it was almost impossible to find other instruments of raising capital for rehabilitation of the oil wells fleet).

PSA was a valuable legal instrument with a historical rack-record worldwide. This is why its adapted version (for specific conditions of Russia and in Russia at that time) was considered then as the best available option. What were the major tasks for developing PSA legislation in Russia, as foreseen by its drafters in 1993-1996?

### **Major tasks for developing PSA in Russia**

Firstly, PSA should create legal basis for “project financing” of Russian oil since the host state’s or investor’s portion of the profit oil from the PSA could be used as the collateral to raise money for field development.

The second point was to introduce civil law (contractual law) principles into Russian legislation, including mutual and counter responsibility of the State and the Investor. The idea was to add to the instruments using administrative law principles, like licenses for subsoil use (when the state always dominates over investor which provide for the latter less legal protection, though it is an investor who undertake all commercial risks in developing the subsoil), the civil law-based instruments when the host state and an investor (non-dependent whether domestic or foreign) would be equal in their contractual relations in regard to subsoil use and will both face mutual contractual responsibilities under PSA, including opportunity to approach international investment arbitration courts in case of violation by any party of the PSA as investment agreement between the two.

At that time it was clear that it would be mostly foreign investors who will have an opportunity to raise the money at international capital markets, backed by their high credit ratings, which Russian companies alone will not manage to do at that time. That stipulate for creation of consortia of foreign and Russian companies as project companies to develop this or that PSA project. The risk premium for foreign participants of the project company for raising money would be much less than for their Russian partners in the

consortia, so it was foreign partners who were usually responsible for rising capital for the project. In result the debt capital for the project would be less costly and production costs would be lower due to lower financial component of the costs.

Third point – to provide legal and tax stability, transparency, predictability for the projects with highest CAPEX value per project, longest investment cycle and project's life-time. Before the law “On PSAs” duration of stabilization (grandfather's) clauses established by different segments of Russian legislation was much shorter compared to the duration of an investment cycle of field development, which can easily reach 20-30 and even 50 years in the upstream industries.

In Russia through the 1990-ies duration of grandfather's clause was fluctuating within single digits (reaching 7 years maximum in the end of the decade – Figure 8), which does not cover investment phase of the project plus the duration of its payback period. Investment phase can take 5-7 years and another 7-10 years will take payback period if investor is looking for 10-15% rate of return (ROR). This means that 7 year-long grandfather's clause is not enough.

It was only within preparation of PSA legislation that we (its drafters) have presented the concept and philosophy that grandfather's clause should be expanded to the whole duration of the investment project. This does not mean that all parameters of the PSA as the investment contract should be fixed through the whole future period of few decades. That means that clear procedures how these parameters can be adapted can be included in the contract and – which would be better – are protected by law. In this case transparency means clear vision of the contractual parties how these adaptation procedures should work.

A parallel how to combine stability and flexibility could be provided here with the experience of, say, long-term gas supply contracts with price indexation. These contracts are in place since 1962 (famous Groningen model of LTC). The prices in such contracts are fixed not by their value, but by the formula which provide fluctuation of the gas price in line with the prices of the replacement fuels to which gas price is indexed. But at some point in time, when, say, new replacement fuels appear at the market and indexation formulas need thus to be adapted, special “price review clauses” – which are incorporated in each and every LTC - are being enacted. These

clauses determine clear and transparent procedures on when, who and how can change either the parameters within the given indexation formula or the formula itself (usually by the negotiation which means that results can be reached only at the mutual basis). Similar approach should be used in the PSA: to be flexible it need be adaptable, but the rules of adaptability need to be fixed for the whole duration of the project.

Another important point: by implementing PSA regime in addition to licensing regime we (drafters) tried to create competition between these two mutually equal investment regimes – their competition for the investor-subsoil user thus increasing investor-friendly character of both regimes. Different Ministries were supportive for different investment regimes of the subsoil use at that time: Ministry of Natural Resources has drafted the law “On the Subsoil” and thus was supportive for licensing regime. And the Ministry of Fuel and Energy was supporting us in our drafting the PSA legislation because it was more friendly for the energy companies (sphere of responsibility of this Ministry) than licensing regime. The idea was to create competition between the regimes, so in competition for the investors they will become more attractive for them and more efficient. So “competitive” element – intention to create competition between investment regimes - was an important element in the philosophy backing PSA idea in Russia. The final winner from such competition that will lead to more attractive investment regime and increased inflow of investment into Russian subsoil use would be both investors and the state.

Final point: with the PSA regime we (its drafters) had an intention to introduce profit based taxation with the double differentiation (see above) based on common mechanisms. But those mechanisms should be individualized within each particular project. What are such common mechanisms? One of them is the sliding scale of production sharing based on the internal rate of return (IRR) of the project. The higher IRR is - the higher is the portion of profit oil which belongs to the state. The lower is IRR - then proportion of profit oil split will change in favor of investor.

### **PSA & licensing: key differences**

Technically speaking, the key difference between licensing regime (which is usually called “tax and royalty”) and production sharing regime seems not as

great (see Figure 18). Under “tax and royalty” regime, all costs and taxes are step-by step deducted from the price and in the end investor stays with some rate of return, which (dependent on a number of factors, including configuration of the tax system in the host country) might cover his expenses or not. PSA philosophy differs significantly from “tax plus royalty” logic from some stage. At first, cost deduction from the price is going the same way in PSA as in “tax plus royalty” scheme. But taxation (or rent taking) organized differently. It is not fixed taxes that are deducted from the taxable income, but taxable income is divided between the two on the basis of sliding scale. This provides flexibility for the PSA contrary to “tax plus royalty” scheme. Flexibility of taxation is its very important component which provides tax regime to stay neutral even with significant price fluctuations (to exclude repetition of the situation presented at Figure 4). And unpredictable oil price fluctuations are a key trend of the current state of the market with commodities exchange-based pricing and dominant role of non-oil speculators who are the drivers of the price changes in recent years.

*(Figure 18: Basic difference between “tax plus royalty” and PSA regime)*

The idea of broad development of the PSA was very much supported by the business. This support was so strong that PAF has for some period been lobbying for transformation of all licenses into PSAs. When in 1997 State Duma has started preparation of the so-called “list laws” (the laws with the lists of subsoil blocks to be developed on PSA rules) oil companies has presented to the Duma their request on 250 subsoil plots, including existing licenses to be transformed to PSA. This support was based on pure economic arguments: under any price environment PSA provide to the state opportunity to collect maximum possible resource rent from the project while at the same time leaving the company-subsoil user with reasonable ROR.

### **PSA vs. licensing vs. economic growth**

But PSA regime also had (and still has) a lot of opponents. Their argumentation against PSA was mostly based on different perceptions which

were nothing to do with economics but mostly with mentality. One of the most popular arguments against PSA was that as if it is an attribute of the colonial and less (and even least) developed countries; and that we, the Russians, would not provoke to be identified with such countries by using instrument immanent to them, and that since PSAs are usually used not in democracies but in the monarchies and autocracies its implementation in Russia might spoil the image of Russia as democratic state, etc.

Our calculations shows, that implementation of PSAs and “tax plus royalty” schemes worldwide as a function of level of economic development of the host state, is illustrated by two bell-type curves, with peaks at the top. The PSA curve is located in the area of states with lower per capita GDP levels, and the “tax plus royalty” curve - in the area of states with higher per capita GDP levels. The difference is especially clear if to move from the distribution of petroleum arrangements within all states (non-dependent whether oil-producing or not) to such distribution only within oil producing states (see Figure 19). This means that with its about 8000 USD/capita GDP in 2004 (when the study was done) Russia stays within the area which is just between two peaks. There is a dozen of states in the world which use both systems simultaneously – and Russia is just among them. This means that Russia’s figures do not influence nor on “tax plus royalty” curve, nor on PSA curve.

*(Figure 19: “Tax plus Royalty” (concessions & licenses) vs. PSA worldwide: distribution curves (2004))*

The picture became much more illustrative if Figure 19 is reorganized into Figure 20. The latter clearly demonstrates that Russia is much more inclined to the PSA group.

*(Figure 20. Oil taxation models vs. average GDP per capita, oil production and reserves (2004))*

Old democracies (developed market economies) spent decades and centuries in developing their legal systems which protects property, business, civil rights, etc. – all the components of modern society that create less (or even

least) risky business environment compared to the states, where (due to different reasons) the “legal history” is much shorter. This means that in the countries which just recently began to develop their legal systems (non-dependent on whether they have moved from the colonial stage to developing, or from socialist to market-oriented) the nomenclature of business risks is much higher than in old market economies with well developed and diversified legal systems. This means that investment regime which makes investor less equal than host state, and more dependent from domestic courts with less transparent rules, in the countries with comparatively short “legal histories”, such investment regime is more risky for the investor compared to the regime under which, by definition, the state and the investor are mutually equal (by civil law) and where investor can rely not on less neutral domestic courts of the host state but on more neutral (and usually more professional) international arbitration tribunals.

In the latter case the PSA – with its individualized character - acts as “enclave of stability” because it compensates for lack of clear and transparent rules in domestic law with generalized licensing rules. But as each individualized instrument PSA results in more time consuming procedures to reach a consensus between state and investor.

On contrary, licensing systems based on administrative law which is, by definition, less supportive to the investor since it always make him subordinate to the state, can be more advantageous for investor compared to more time-consuming PSA if investor operates in the country with long “legal history” where in result transparency of administrative law system and thus predictability of state behavior compensates for its basic “disadvantage” against PSA based on civil law.

So it is not the colonial type of the economy or monarchial type of the state power that does matter in selecting licensing or PSA investment regime for the host state, but its ability to best effectively mitigate the nomenclature of risks immanent for this specific period of economic development in this specific country. Russia, as economy in transition with still higher risks compared to a lot of other countries, deserves multiplicity of instruments mitigating risks of doing business in Russia. PSA is a best risk-mitigating instrument (for investor) and rent-collecting instrument (for the state) in subsoil use.

## **“Konoplyanik’s trousers”**

How both regimes can be simultaneously implemented in Russia?

There is a regular bidding procedure for access to subsoil use rights introduced by the law “On the Subsoil”. This existing mechanism should be just slightly adapted by giving to investor opportunity to choose between two regimes in the bidding. The state should prepare model PSA and model licensing agreements which need be available for the potential bidders in advance. The open element in them (bidding criteria) should be discounted value of rent collection by the state through project life. Rights for subsoil use are given in Russia for 20 years (production) and further 5 years (exploration). Applying for subsoil use investor should indicate in his bidding proposal not only this value (the bigger will win) but also the type of investment regime of subsoil use under which he would like to develop this project. A winner indicating in his bidding proposal his willingness to operate under licensing system, will receive its license and licensing agreement and his future operations will be governed by the law “On the subsoil”, including the tax system attributable to licensing regime and governed by corresponding Chapters of the Tax Code. On contrary, a winner, indicating in his bidding proposal his willingness to operate under PSA regime, will receive its PSA and his future operations will be governed by the law “On PSAs”, including system of rent collection attributable to PSA regime and governed by the law “On PSAs” and corresponding chapters of Tax Code (see Figure 21). (This illustration of this author’s historical proposal, when was presented in the State Duma, was labeled by V.Karasev, Deputy Governor of Khanti-Mansy major Russian oil producing region, as “Konoplyanik’s trousers”).

*(Figure 21. Two equal regimes (author’s historical proposal))*

Important element of the proposed system: after investor was granted subsoil use rights, he cannot change the regime, under which he has won the bidding.

## **Flat-rate MRPT vs. PSA**

PSAs are an economic and legal instrument with rent-based taxation designed to reach an optimum distribution of mineral rent between the state, the owner of the subsoil resources, and the investor. Under a PSA, taxation is customized to a particular development. Its negotiated character (which is based on a mutually acceptable profit-oil split) and its stability over the project's lifetime are among its advantages over the existing licensing system. PSAs involve a lower level of risk for companies, making financing easier and cheaper to raise and attracting a greater number of investors – important considerations for an economy in transition. This should – went the thinking of the drafters of PSA legislation in the mid-1990s – have a positive knock-on effect on the level of investment protection provided by the licensing system.

The PSA does not constitute a preferential tax regime for companies. Taxation is rent-based. PSAs will, overall, always yield greater revenue to the state than the licensing system. The latter involves a flat-rate, royalty-type, revenue-based taxation scheme, known as the mineral resources production tax (MRPT). This came into effect on 1 January 2002.

In small projects, the burden of the flat tax rate will prevent companies from achieving an adequate rate of return (ROR) and fields will not be developed. State revenues in these cases will be zero. A PSA would enable the same project to go ahead, as it allows the state and the investor to compromise on economic terms of the project development scheme. The result is a reasonable ROR for companies and additional tax revenues for the state from the projects that alternatively would not be developed. In projects that provide subsoil users with higher-than-average rents, PSAs can maximize state revenues by allowing case-by-case adjustments to taxation levels.

However, the MRPT is inflexible and can, therefore, act as a cap on state revenues. Figures 22-1/22-3 present hypothetical and simplified distribution curves of Russia's oilfields, according to diminishing productivity (it is represented by a straight line for ease of comparison). Figure 22-1 illustrates the distribution of the mineral rent between the state and investor under the MRPT system and Figure 22-2 illustrates this same distribution under the PSA system.

*(Figure 21: Comparison of flat-rate MRPT and PSA systems)*

Figure 22-3 indicates the consequences for the state budget of transferring from the MRPT to the PSA system. The state would have received additional revenues, denoted by zones A and C. Under MRPT, it would not have received this revenue, as zone A rents would have been retained by the companies (with the flat rate of tax capping state revenues). And zone C rents would not have been generated in the MRPT case, because, under this system, companies would not have started developing the fields, given the prospect of negative profitability.

The opponents of PSAs view the picture differently. They argue that if PSAs are used to develop fields to the right of the equality point, the state would face “lost revenues” (zone B). This conclusion is based on a mathematical calculation of the virtual tax that would have been generated by the MRPT’s flat tax rate. Although this is higher than tax revenues under PSAs, the argument is invalid, because no investor would develop a field with an unreasonably low or negative ROR. Therefore, PSA revenues in this zone must be compared with zero revenues under the MRPT regime.

Secondly, they have kept quiet about the possibility of PSAs being employed in another part of the resource spectrum where the share of rent in the price exceeds the tax level (effective tax rate) under the MRPT by more than reasonable ROR (zone A). In that zone, PSA arrangements would considerably increase the tax burden on companies. They would result in a larger state take at every budgetary level (federal, regional, local), while preserving investors’ RORs at an acceptable level, in turn stimulating investment in exploration and production. This was precisely what Russian oil companies opposing PSAs have feared most: they would have to share revenues more fairly with the state (as well as facing more competition).

Paradoxically, PSAs could prove more attractive for the state in the zones both to the right and to the left of the break-even point:

- PSAs would be more attractive to the right of this point because companies would find it unprofitable to develop fields in this zone on any non-PSA terms; and

- PSAs would be more attractive to the left of the point because reliance on PSAs in this zone guarantees larger tax receipts for the states than the MRPT system.

It were companies with the most favourable reserves structure (which they received almost free from the state during privatisation in the 1990s) that were not interested in the existence of the PSA regime in Russia, but preferred the flat-rate MRPT system.

Yet the state – in absolute contradiction to the argument that PSAs are contrary to the national interest – faces major losses under flat-rate MRPT in all zones of the reserves spectrum, compared with any type of differentiated-taxation mechanisms, either based on the licensing system, or on the PSA scheme. That does not mean that the licensing system should be dispensed with and PSAs introduced for all subsoil developments (even though Western companies lobbied for such proposals in the mid-1990s). The different categories of risks arising under PSAs and the licensing system make peaceful coexistence of both regimes possible. All other conditions being equal, PSAs are more effective from the standpoint of fair rent allocation. But negotiations on PSA terms are more time-consuming and delay field development, and, therefore, cash-flow.

Nonetheless, some Russian firms have fought against PSAs and in favour of flat-rate tax to protect windfall profits to preserve an extra margin of income. This struggle has occurred in two phases. First, there was a push for a flat rate of tax and, once that had been attained, for a ban on PSAs. The effect has been to eradicate rent-based taxation in the Russian oil industry. The sequence of the steps also has its own logic – all Russian oil firms produce crude in Russia under licenses. PSAs were only a future possibility and priority was given to then existing cash flows. PSAs were resisted by those who had something to lose if such arrangements became widespread – companies that would have to give more to the state than they did at the moment. This had resulted in such determined opposition to rent-based taxation, it explains why they had railroaded the flat-rate MRPT during decision-making on the oil taxation and why they were besmirching the very idea of PSAs. It is a mystery why the government had gone along with it.

### **PSA and licensing proposed coexistence**

We have managed in 1995 to push forward and pass the PSA law but we did not manage to pass the law on concessions. The latter was presented in the

same package with the PSA law but they were voted separately (this was the State Duma procedure). Figure 23 presents the vision on how licensing and PSA (only these two legal systems in subsoil use are allowed in Russia, though PSA just formally) can peacefully coexist.

*(Figure 23: Zones of competitive preferential application for PSA vs. licensing (tax plus royalty))*

Let's put on the X-axis the increasing volume of reserves of individual fields (projects), and on the Y-axis – their increasing number. Due to uneven concentration of oil and gas reserves in the subsoil, the increasing unit volumes of reserves (in individual fields/projects) will be attributed to a diminishing number of such fields/projects. Within the area of small unit volumes of the reserves of the individual fields it then would be necessary to unite few neighboring fields into one single project to overcome the profitability benchmark (minimum ROR level).

Figure 24 illustrates one of case studies that we have undertaken in one of the Russian regions – in Udmurtia. Cumulative DCF/NPV of 11 individual neighboring fields was much less attractive (hardly marginal) compared to the development of these fields as united project. This is why in a left-hand section of Figure 23 (area of small fields) two types of curves are presented, deviating from each other only in this left-hand zone of the chart: number of the fields and number of projects. In right-hand part of the chart (in the area of large unit reserves of single fields) there is no need in such unification since each individual field will provide economy of scale effect if developed as single project and thus will be profitable (all other parameters being equal) with acceptable ROR for an investor-subsoil user.

*(Figure 24. Cumulated DCF/NPV of individual fields and of united project combined of these fields (Udmurtia project case))*

At the time of coexistence of both licensing regime and PSA, the principle of two keys was still valid, introduced by the Law “On the Subsoil” in 1992: one “key” (a critical vote in decision making regarding subsoil use) for the federal authorities, another “key” (with the same critical vote in such

decision making) for the regional ones. It was understood that such multiple approach will prevent from ineffective subsoil use.

My idea was to give full responsibility to the regions for development of small- and medium-size fields located at their territories. It was critical to accurately define the benchmark size of the field, but once it defined and became supported by law, the regions were, up to my mind, be solely responsible for providing and controlling their subsoil use, including the right for region's authorities to allow unification of a number of small fields into a single project without lengthy time-consuming coordination with federal authorities (Figure 23).

Such approach will lead to the following placement of the risk-curve (see Figure 25). It is always more risky to develop the fields with the highest unit volume of reserves because the unit size of the risk is very high and the degree (the "price") of mistake will be thus extremely high. In case of mistake investor faces the risk to lose big money. On the other margin of the unit reserves spectrum the risk is also high due to the risk to go below ROR. These high risky zones demand not a standard, but an individualized mechanism of risk mitigation, and thus they are preferential for implementation of PSA. Central part of the spectrum, where the overall risk curve downgrades, might be the zone of preferential implementation of licensing regime.

*(Figure 25: Flexible boundaries between zones of preferential use of PSA and licensing regime)*

What are the trade-offs that would make for investors-subsoil users preferential to use PSA at the margins of the spectrum and licensing in the middle of the unit reserves diapason? Individualized PSA is more time-consuming than standard licensing regime. This is why investor could trade-off time and money: the higher is the value of the risk (right-side of reserves diapason) the longer time he is ready to spend negotiating economic particularities of the production split in order to reach a balanced solution. The same is true for the small-fields area, but here the time costs more for the investor (in relative terms), so in this case the duration of procedures should be reasonably shortened. This is why we have proposed for these fields not only giving two keys in one "local" (regional) hand (Figure 23),

but shortening the procedures per se. The earlier project will be started – the sooner it will begin to generate indirect, multiplier for the host state and then direct effects both for the host state and the investor.

If this concept would have been adopted, the boundaries between the zones of implementation of two regimes will be – and should be – flexible, especially with the price fluctuations. From my view, it should be for investor to define which regime provides him with better risk mitigation at the edge between two zones. This should be his incremental risk which will demand his fair assessment of all project details, including of the available investment regimes as well. In different price environment (in the situation with higher or lower levels of oil price dominating at the market) correlation between risk-factors will be different thus influencing on the width of the zone preferential for this or that investment regime (Figure 25), and the choice should be given to investor to chose most effective regime for his individual case. But as a general rule, the higher is the price – the more narrow is be the zone of PSA implementation and the broader of the licensing regime. The price will go down and situation will be reversal (Figure 25).

Just an example: the strongest support for PSA was in end 1990-ies when the world prices were first low and unstable (fluctuating in the range 10-25 USD/bbl throughout the 1990-ies, and then fall to 8 USD/bbl in 1998 in result of Asian crisis). In 1998, after the August default in Russia, President Eltsin has appointed E.Primakov as a Prime-Minister. And it was that time (in the second half and end-1990-ies) when PSA obtained the biggest support in Russia. Since early 2000-ies when the oil price began to grow, oil companies' interest, as well as from the Government, to PSA began to decline: the companies were ready to compensate inefficiencies of oil taxation by growing oil-price-rent which at least partly stays in their disposal, incl. due to the lagged effect of export customs duty (see above).

### **Why Russian VIOCs were finally against PSA**

Why Russian oil companies have stopped supporting PSA in early 2000-ies and, moreover, began to fight against it? It was not only due to the fact that with the MRPT with flat rate these companies with younger fields began to receive extra resource rents which were underutilized by the state with the

MRPT, but can be utilized with implementation of PSA. The “new oilmen” (especially M.Khodorkovsky/Yukos and R.Abramovich/Sibneft) began to see another danger in PSA. They were preparing to sell big packages of their companies to major international VIOCs and in these circumstances PSA was a competitive way for Western companies to invest in Russian oil. All Western companies would have preferred to invest at that time not in yet non-transparent assets of the mother-holdings of Russian VIOCS, but directly in the projects. And PSA as a project-oriented and investor-friendly regime provided such an opportunity – to enter Russian market by-passing purchasing of the stocks of Russian companies (project investments vs. corporate investments).

In early 2000-ies I have entitled one of my articles explaining such a motivation of Russian majors against PSA as “PSA: to kill a competitor” since PSA regime has been preventing Russian majors to force Western major to enter Russian oil market under control of Russian VIOCs by leaving to the westerners only one way of doing so – by purchasing the stocks of Russian oil companies. This is why PSA was first demonized and then (through the lobby of the oil companies in the State Duma, under the leadership of Yukos representatives) de facto nullified as a legal instrument. (I wrote about this in a number of my articles and in one of my books that was published in 2002 at the time of M.Khodorkovsky’s peak influence, so I feel myself possessing a moral right to indicate his leading role in killing PSA regime in my country notwithstanding the fact that today M.Khodorkovski is in prison.)

If there were no PSAs, then the newly established Russian oil companies belonging to Russian oligarchs that received their assets at big discount during “loans for shares” auctions in mid-1990-ies as a pay-back for their support of M.Eltsin at the 1996 Presidential elections, will monetize the difference between low purchase price of their companies and high selling price of it to Western companies. To further increase the selling price to the westerners in early 2000-ies – the prohibition of PSA was needed (“to kill a competitor”). And PSA was de facto “killed” with the oil tax reform – in 2003, by amendments to Chapter 26 of the Tax Code.

### **PSA story: major current results**

In early 2000-ies PSA regime was marginalized (from open-end willing list of more than 250 projects proposed in end-1990-ies by Russian companies to be converted into PSA, first to 31 projects included in so-called draft “list laws” (State Duma has invented such complicated procedure that if the company would like to develop a project on PSA terms it has first to include it in such “list law” which means that this project is allowed to ask for PSA), then to 8 such projects. And finally the list of acting PSA projects has ended with only those 3 PSA projects (Sakhalin 1 & 2 and Khariaga) that were put in place before the law “On PSAs” was adopted. These three PSA projects were just grandfathered by PSA law. “Window of opportunities” for small PSAs is closed, “window of opportunities” for mega-projects is narrowed as much as possible even in theory and is close to zero in practice.

The major losers of stand-stilled PSA regime are the Russian state and project-oriented foreign investors, plus most of Russian oil companies, especially with difficult reserves plus Russian manufacturers who (surprise-surprise) has actively lobbied against PSA but in the absence of PSA do not possess the orders for goods and services from these projects.

The major expected winners of PSA regime liquidation were to be two particular Russian VIOCs (Yukos and Sibneft), who have lobbied actively (especially the first one) against PSA in order to increase their own selling price.

It seems that no new PSA projects can be foreseen as a general rule in the nearest future (only on a pure exceptional basis), until PSA regime would be effectively restored. Contrary to a lot of speculations, Sakhalin-2 PSA story is not the fault of PSA system, but, on contrary, demonstrates its successful development (otherwise Gazprom would not be so interested to enter it as a shareholder of the project company).

From my view, PSA regime is to be and would be restored (hopefully sooner than later) since this is in the long-term interests of Russia. What would be the most effective model of such restoration?

**Which way to go further?**

The key question in this regard is: how many investment regimes/oil taxation systems are needed for Russia?

Taking into consideration Russia's multiple diversity, my country is not obliged to implement domestically only one legal regime for subsoil use, because of huge geographical dimensions and geological complexities in different areas of the country.

Russia still allows application of licenses, concessions, PSAs, risk-service contracts within its territory by the 1992 law "On the Subsoil" (Article 12). Russia has already incorporated (since 1996) two regimes for subsoil use in its legislation (licensing system and PSA) and has implemented both in practice, though not on equal footing, and though the PSA regime has been consistently marginalized and nowadays almost nullified, it is still present in the Russian legislation. The law "On concessions" was adopted in 2005, though it excludes application of concessionary mechanism from the subsoil use. Current licensing regime, though universal by law (through unified MRPT concept) began to de facto deviate from its non-differentiated nature since 2007 when different concessions were allowed from unified MRPT treatment either for individual regions, of types of projects, or standard elements of investment stimulations were enacted for individual cases, though in a handy manner (Figure 17).

Nevertheless, it is not impossible to make additions and/or amendments to both the law "On PSAs" and "On concessions" to revitalize their implementation in the subsoil in the more/most effective way. This is especially true since continuously more and more complicated geological and worsening geographical conditions of new Russia's oil and gas provinces require not individual concessions for this or that project in a handy manner – which does not provide transparency and predictability of investment regime for subsoil use – but established in the law set of mechanisms protecting and stimulating investors and their investments and diminishing for them non-commercial risks of developing Russian subsoil.

Russia is one among the group of 13 oil-producing countries (with cumulative proved oil reserves of this group equal almost to one tenth and crude production of up to a quarter of world total) that implement more than one legal regime for subsoil use in its territory (considering that in Russian case both legal regimes are still legally valid). On the economic development scale Russia is placed between more developed countries with

one dominant regime in subsoil use (licenses/concessions) and less developed countries with another dominant regime (PSA). All these factors are in favour of the idea to have multiple investment regimes and multiple tax systems for subsoil use in my country.

I see the system of multiple investment regimes for Russian subsoil (investment menu) in the form of matrix with two axes: legal system (administrative law vs. public law), which is important for investor in terms of securing stability of his contractual arrangements, and tax treatment (general, unified, common taxation vs. special, individualized, differentiated tax regimes), which is important for him for securing his ROR under different state of the market parameters (see Figure 26). Under such approach investment matrix will consist of four segments, each one presenting special investment regime for subsoil use, differing from three others:

- (1) licensing – unified taxation plus administrative law,
- (2) Licensing with allowances (differentiated licensing regime) – differentiated taxation plus administrative law, where differentiation might be organized in the form of individual derogations from general tax regime (as nowadays) or in the form of adding sliding scale-based instruments to existing flat-rate MRPT (this is an intention of the drafters of “windfall profits tax”),
- (3) Concessions – unified taxation plus civil law,
- (4) PSA – individualized taxation plus civil law.

*(Figure 26: Possible composition of investment regimes (investment matrix/menu) for Russian subsoil use (within legal vs. taxation axes))*

In the meaning of this matrix the term “concessions” may be different from the traditional understanding what concessions historically were, especially decades ago. By I decided not to invent a new term. The idea behind this new “concessions” is that we take general common taxation rules (what was basically called a “tax plus royalty” scheme) and place them into a civil law environment. Instead of providing stabilization (grandfather) clauses in the administrative law environment (as is done in licensing regime) such interpretation of concessions within civil law helps us to provide stability of concessionary agreements for the whole duration of the project and equalize in their rights and obligations both parties of the project – the host state

resource owner and the investor subsoil user, including the ability of both parties to apply to international arbitration tribunals in case of disputes. So stability is a key element here.

The history of such interpretation of the term “concession” being (unsuccessfully, as I have already mentioned above) attempted to apply in the Russian subsoil, is the following.

In 1994 State Duma deputies from the Yabloko fraction (who have been heading the Committee on economic policy) invited me to head a group of drafters for the law on concessions (since the previous version of the law – on concessionary and other agreements with foreign investors – was vetoed by the President in August 1993). They have two major questions then.

Their first question was: Whether the law need be drafted for foreign investors only? or for both foreign and domestic investors? My answer was “no” since I was convinced that investment legislation in Russia need to be based on the principle of “national treatment” of investment as it was stated in Article 6 of the law “On Foreign Investments” in June 1991 and has been incorporated in different legal acts since then.

Their second question was: what do I think about “grandfather clauses” in investment contracts? How long might be its duration in the Russian concessionary law? My answer was “for the whole duration of the investment project” with adaptation mechanisms similar to “review clauses” in long-term contracts.

After that conversation I was as a head of drafters of the law “On concessions”. At that time I was already working on PSA legislation. So I proposed to combine these two laws (“On concessions” and “On PSAs”) into one package since they were further developing provisions of the Article 12 of the law “On the Subsoil” aimed at creating multiplicity of investment regimes for subsoil use in Russia.

Licenses with allowances means administrative law and general taxation with individual derogations unilaterally provided by the state on a term basis for this or that region, company, project, etc. – so individual and non-systemic exemptions from the general rule. This is better than none, though being of non-systematic – and thus of non-transparent (non-predictable) – character, such approach can’t fully mitigate investment risks. A good

example of positive effects of such approach is a so-called “Tatarstan experiment” when the regional authorities have been providing investment stimuli for the producers of heavy oil and for the fields at the fading state of production at the territory of Tatarstan region, by diminishing (within the area of their competence) their portion of profit tax. At the time of experiment profit tax rate was equal to 24%, including 4% as the region’s share, and the regions were allowed to diminish their portion of profit tax to stimulate investors. It was proven that by diminishing its direct fiscal earnings with lower level of profit tax take, Tatarstan, nevertheless, has significantly increased indirect and multiplier effects from the projects and has received, in sum total, significant incremental earnings, as well as the state as a whole.

Finally, PSA is a combination of the civil law and individualized tax treatment. This provides biggest flexibility in taxation and highest stability in legal terms. This is why is the regimes are placed according to their diminishing preference for investors, their order will be the following: PSAs will be at the top, concessions and licenses with differentiated taxation – in the middle of the range, and pure licenses (with no differentiation) – at the bottom of the hierarchy (see Figure 27).

*(Figure 27: Different investment regimes in subsoil use: comparative legal & tax advantages/disadvantages)*

If the proposed idea of multiple investment regimes will be supported and implemented, I will see the following spheres of their preferential competitive implementation within reserves diapason similar to what has been mentioned above in regard to two regimes only. The civil law preferential area will be located at the margins of reserves diapason, and public law area will most probably spread over the central part (see Figure 28). The reasoning is the same as was in regard to Figure 23.

*(Figure 28. Proposed application zones for different investment regimes in subsoil use in Russia)*

The major point is that it need to be for investor to decide whether he will be ready to spent more time on negotiations within civil law procedures to reach equilibrium settlement with the host state on the rent sharing in case of giant and just large fields/projects, or he will be ready to trade-off the lower level of efficiency of government take for stability and time-winning by taking standard public law procedures.

And in the area of smaller fields more authority should be given to the regions since local authorities much better know the particularities of their regions. It is not possible from Moscow to manage resources in Tatarstan and Chukotka, Komi etc. with the equal footing. It is not practical – the USSR experience has proved this. So it means that within federal state Russia needs to return to the “two keys” principle, but in a manner presented in Figure 23.

## **Conclusions**

General development of investment regime for subsoil use in post-Soviet Russia from the very beginning was organized with the aim to provide multiplicity of terms and conditions of subsoil use, i.e. aimed at multiplicity of investment regimes, though for the majority of professional – and especially for nonprofessional - community it might not be seen as intentional development since the results of the struggle for differentiation of oil taxation and multiplicity of investment regimes for subsoil use were not so evident (opponents were too strong). Differentiation of rent taking (of government take) was established by law in the very first version of the law “On the Subsoil”. Since that time Russian subsoil legislation development can be characterized by paradoxical conclusion: preferential alternative options chosen by the state have been always worsening oil and gas investment climate (except mid-1990-ies and since late 2000-ies, see Figure 29). Two attempts to adopt law on concessions which will spread over stability of contractual terms of investment projects to the whole duration of the project failed (in 1993 and 1995). PSA law which has finally entered into force in 1996, though in a much worsened version compared to initially presented by the drafters, which has been considered by international community as the most investment-protective piece of Russian legislation, has been first overburdened by complicated procedures (like “list laws”) and finally factually ceased to exist since 2003. With that the monopoly of one

single so called “national investment regime” and “national tax system” in the subsoil use based on licensing regime was established in Russia, and it was generally prohibitive for long-term capital-intensive project investments. Evolution of the licensing system since its introduction in 1992 has not been improving its attractiveness for the investors: few attempts to introduce windfall profit taxation failed, differentiation in oil taxation in result of oil taxation reform of 2000-2001 was cancelled and only since second half of the 2000-ies weak individual concessions within the generally prohibitive licensing regime began to appear in Russian oil (see Figures 17 & 29).

*(Figure 29. Russian subsoil legislation development: preferential state's alternatives have been always worsening oil & gas investment climate)*

Differentiation of oil taxation – one of the key components providing investment stimuli for exploration and production activities in a risky environment – was diminished and has fallen to zero in first half of 2000-ies in result of oil taxation reform which had a pure fiscal and totally anti-investor and anti-investment character. In mid-2000-ies oil taxation in Russia has lost all its earlier existed even limited differentiation. Diversity of mechanisms of subsoil use (its investment regimes), stated in the law “On the Subsoil”, ceased to exist. Russia has come to the “bottom” of the curve characterizing diversity of investment regimes for subsoil use and differentiation of oil taxation by establishing a monopoly of pure fiscal and fully anti-investment for subsoil use investment regime and tax system – licensing with flat-rated MRPT and confiscatory (though rather transparent and predictable and favouring oil exporters within the periods of growing oil prices) export customs duty (see Figure 30).

*(Figure 30. Evolution of differentiation in tax treatment in Russian investment regimes for subsoil use)*

There are two possible ways of further development. First – the Government will continue to stay within the so called “national investment regime” and so called “national tax system” – the terms proposed and spread over, by the way, by M.Khodorkovsky before he was imprisoned (licensing regime based

on public law, MRPT with flat rate and customs export duty). Necessity to move further with oil and gas exploration and production to the remote areas such as Arctic offshore, Eastern Siberia, etc. will stimulate the Government to provide in a handy manner individual derogations from existing unified restrictive rules in order to make corresponding projects profitable and in attempts to attract foreign investors – mostly oil majors possessing advanced technologies and managerial skills (“option 1” at Figure 30).

The most recent statements of the newly appointed high-ranking Russian Government officials have been proving their understanding that changes are inevitable. But how radical will be the changes in the mechanisms providing pro-investors character on the investment regime in the subsoil use? It seems that the movement will be rather slow and will be based on the concept of windfall profit taxation, which has been unsuccessfully tried to be introduced the more than once through the previous years. Now it is proposed that this system should be first tested at some individual projects in some companies (nor projects, nor companies have been yet identified). In case of successful results, the system should be implemented step by step. At best, it will take at least 2/3 years to implement it, if it will not be buried up again within the bureaucratic circles. But if implemented, this will be a step forward at least in differentiating tax burden on the projects which will accordingly improve attractiveness (through improved economics) of investment projects in Russian oil.

But this approach has limited advantages because of its non-systemic and unilateral character, if its rather complicated mechanism is not adopted by law. Good example of possible dangers of providing exemptions for the Government decisions is the Vankor field case, where some of given exemptions were taken back by the state earlier than expected.

And there is no consolidated view in the Russian Government on this issue. On the one hand, Ministry of Energy has recently proposed again (this time by the newly appointed Minister A. Novak, whose immediate previous position was deputy Minister of Finance) an introduction in the oil of the “windfall profit tax” or the tax on financial results. According to the Minister, the fiscal pressure on the oil industry in Russia is one of the highest compared to other oil producing states. It is not the financial result, which is taxed and levied, but the absolute value of the gross revenue of the company. This helps to ease tax administration and tax collection, but this does not consider projects economics and hinders inflow of investment to

Russian oil. This also makes non-profitable both new oil production and continuation of development of existing fields. If nothing is changed this would lead to decline in oil production in Russia.

But newly appointed Deputy Prime Minister A.Dvorkovich consider that the new approach should be first tested at some few fields since he is not confident in the advantages of the windfall profit taxation compared to active oil tax regime with different concessions (temporary deviations) from its common rules. Among those the following can be mentioned: individual concessions in flat-rated MRPT for some limited period of time at the project start of up to zero downgraded MRPT value, temporary downgrading of customs export duty up to full cancellation, nullified rates of some other taxes – like of property tax and VAT, etc. On the other hand, A.Dvorkovich has recently stated that since January 1, 2014, new MRPT formula will be established for Gazprom and independent gas producers which should take into consideration specificity of the market, complexity of the fields, domestic and international gas prices, transportation component. What it is if not tax differentiation though via different mechanism?

But recently long-standing Deputy Minister of Finance S.Shatalov (who has been responsible for oil taxation throughout all his period in the office for almost two decades) has stated that idea of windfall profit tax (WPT) has lost its momentum. In the recent years during the debate on differentiation of oil taxation different instruments of such differentiation were examined:

- To stay with MRPT, to diminish export customs duty and introduce WPT,
- To cancel export customs duty and to stay with MRPT and WPT;
- To introduce WPT only for offshore fields and only for the early stages of its development;
- Other configurations of oil taxation system based on MRPT.

So this makes it clear for me that there is a demand for differentiation of oil taxation and for diversity of choices for the investors so the rules are best adapted to particular conditions of the projects. But there is no consensus in the decision-making circles on this.

From this author's view, optimal way to radically improve Russian investment climate in the subsoil should be to implement the concept of "multiple investment regimes" for the subsoil use argued in this paper ("option 2" at Figure 30).

In this case the procedure of granting access to Russian subsoil, presented in Figure 21, should be adopted correspondingly and in line within expanded multiplicity of investment regimes and will look like presented in Figure 31. For its implementation the law “On the PSAs” should be revitalized, and the law “On concessions” should be either complemented by the chapter on concessions in the subsoil or a special law on concessions in the subsoil (similar to the law “On PSAs”) should be adopted.

*(Figure 31: Figure 31. Equal & competitive investment regimes in Russian subsoil use (historical proposal of the author)*

When the whole “investment matrix” is in place, organization of development of the Russian subsoil will obtain the structure presented at Figure 32.

*(Figure 32: Figure 32. Possible organizational structure of consortia for Russian Arctic offshore O&G development (within author’s concept of multiple investment regimes for subsoil use)*

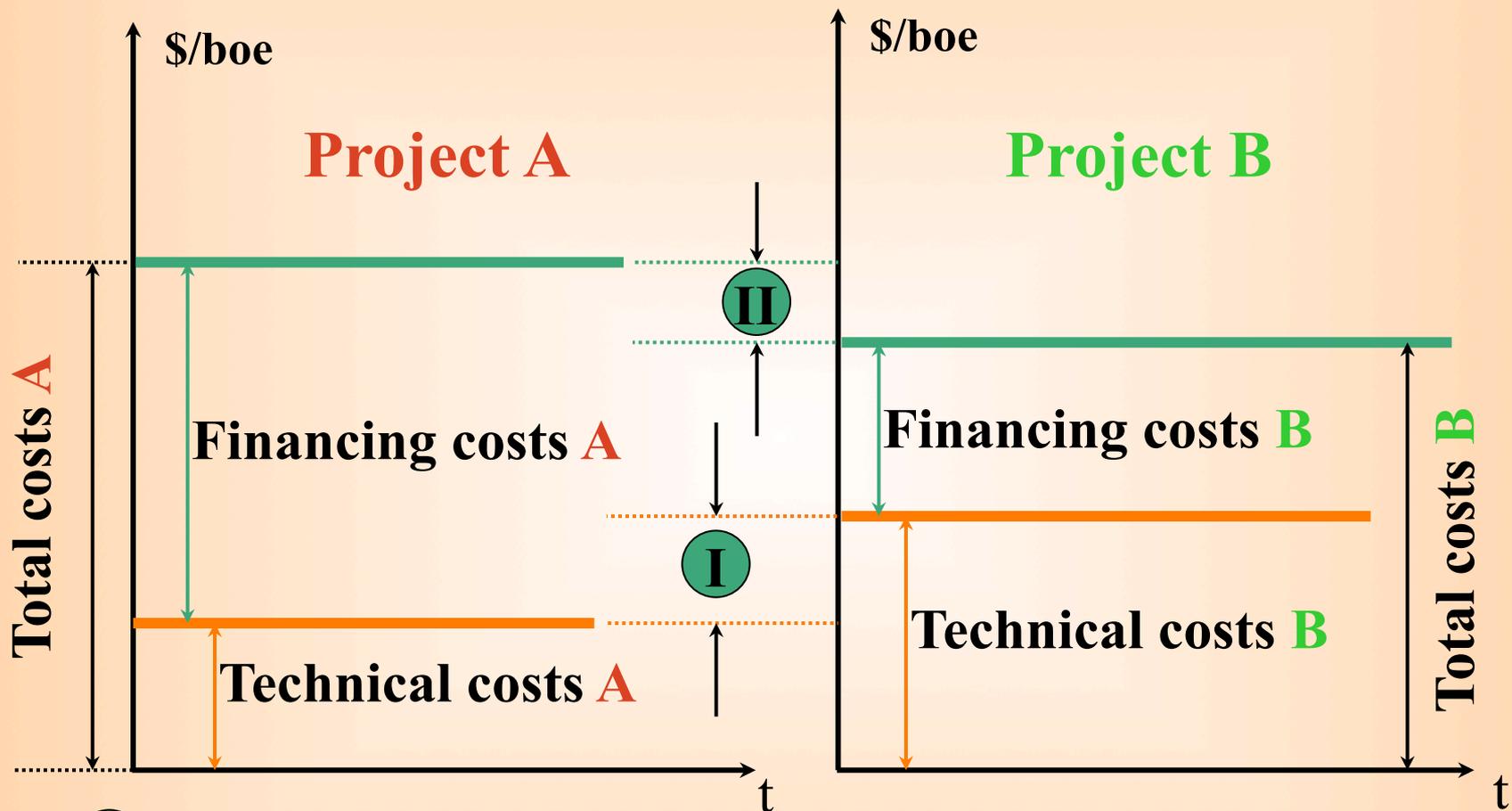
Most probably, development of resources in complicated and remote areas (like in Arctic offshore, for which case Figure 32 is an illustration) will be organized in the form of consortia between Russian companies (in case of Russian offshore development – Russian state companies, Rosneft and Gazprom, since it is only them who can be granted by law the license for subsoil use in offshore areas) and major Western oil companies with available technologies, managerial skills, access to financial resource with lower (than Russian companies) cost of raising capital due to their high credit ratings, etc. Recent agreements on strategic alliances for development of Russian offshore, including in the Arctic, between Rosneft and ExxonMobil, ENI, Statoil has been proving this view.

Agreement on subsoil use between host state – resource owner (Russia) and consortia should be one from the “investment menu” and its competitive granting should be organized based on the procedure presented at Figure 31. Structure of consortia would be organized dependent on specific

competences of its members important for this or that particular project. From my view, the current Russian legislation which demands majority control of Russian state companies – license holders in the consortia (not less than 50% plus one stock) leaving to foreign or non-state Russian companies only minority participation, can be updated in the future by leaving with the state-controlled companies only a blocking package (25% plus one stock) which will be enough to block any decisions which the host state will consider as inappropriate from this state's interests in regard to a particular project development, and besides this will diminish “financial burden” on the state controlled companies in any such project two-fold. Such multiplicity of investment regimes in the Russian subsoil will strongly increase attractiveness of Russian investment climate with all its positive consequences for the state through the increased direct, indirect and multiplier effects from the capital-intensive long-term investment projects in Russian subsoil.

June 24, 2012

**Figure 1. "Natural" vs. "final" competitive advantages of energy projects**

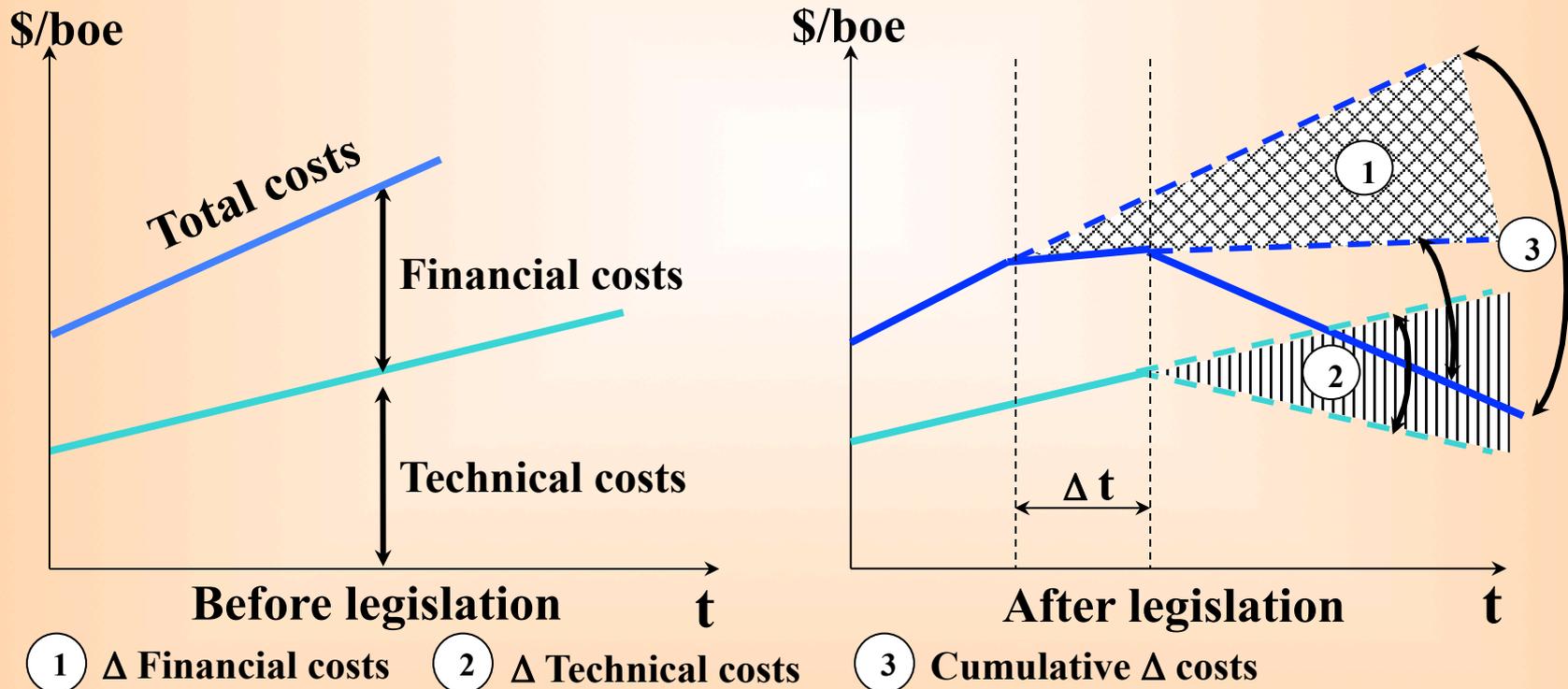


- I** "Natural advantage" of project A over project B ( $A < B$ )
- II** Final competitive *disadvantage* of project A over project B ( $A > B$ )

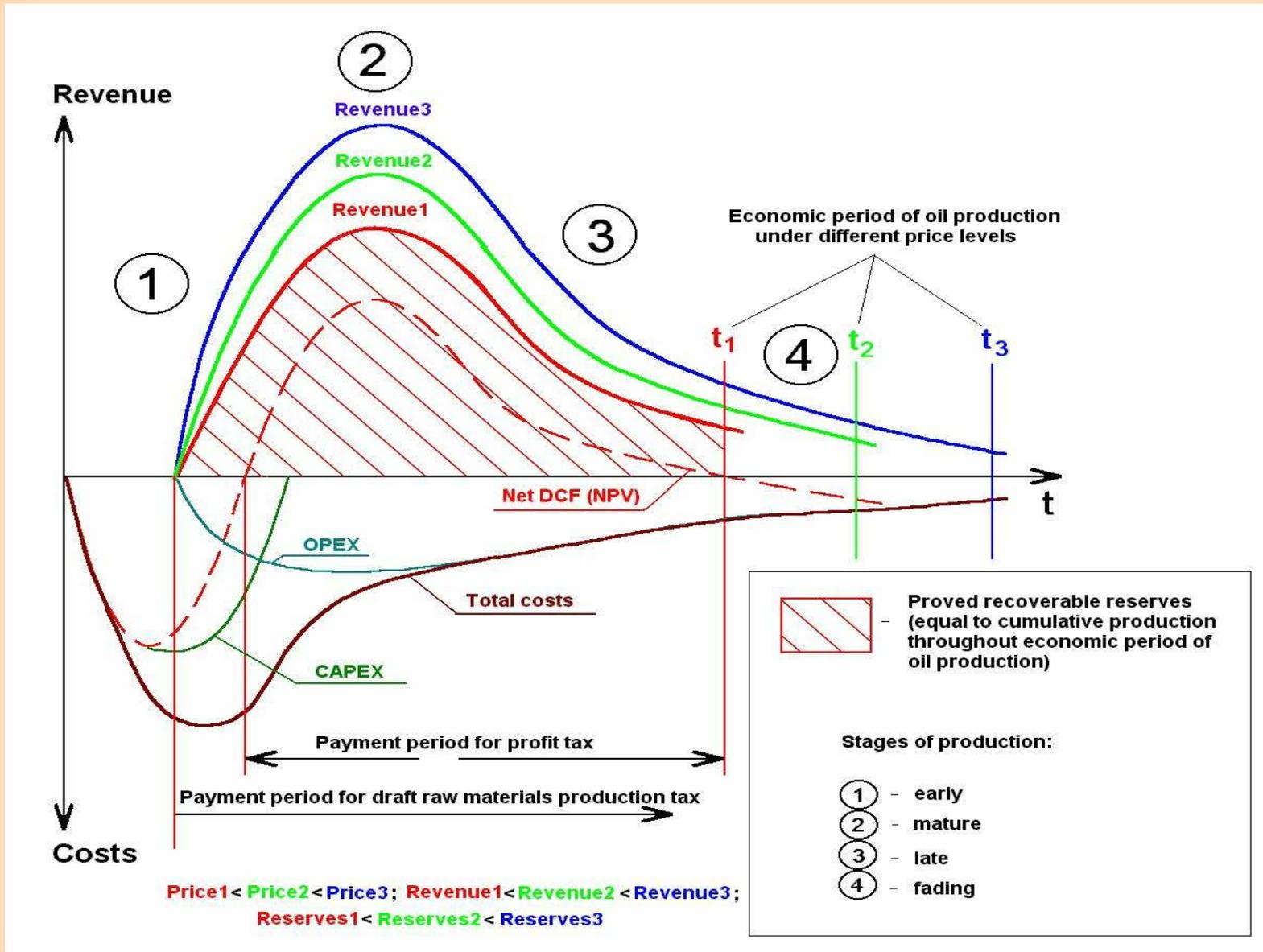
## Figure 2. Role of legal instruments for project financing

Legislation  $\rightarrow$   $\downarrow$  risks  $\rightarrow$   $\downarrow$  financial costs (cost of capital) =  $\textcircled{1}$   
 $\uparrow$  inflow of investments (i.e.  $\uparrow$  FDI,  $\downarrow$  capital flight)  $\rightarrow$   $\uparrow$  CAPEX  $\rightarrow$   $\downarrow$  technical costs =  $\textcircled{2}$   $\rightarrow$   
 $\textcircled{1} + \textcircled{2} = \textcircled{3}$   $\rightarrow$   $\uparrow$  pre-tax profit  $\rightarrow$   $\uparrow$  IRR (if adequate tax system)  $\rightarrow$   $\uparrow$  competitiveness  $\rightarrow$   
 $\uparrow$  market share  $\rightarrow$   $\uparrow$  sales volumes  $\rightarrow$   $\uparrow$  revenue volumes

Legislation provides multiple effect in diminishing risks with consequential economic results in cost reduction and increase of revenues and profits



# Figure 3. Financial flows during oil-field investment cycle

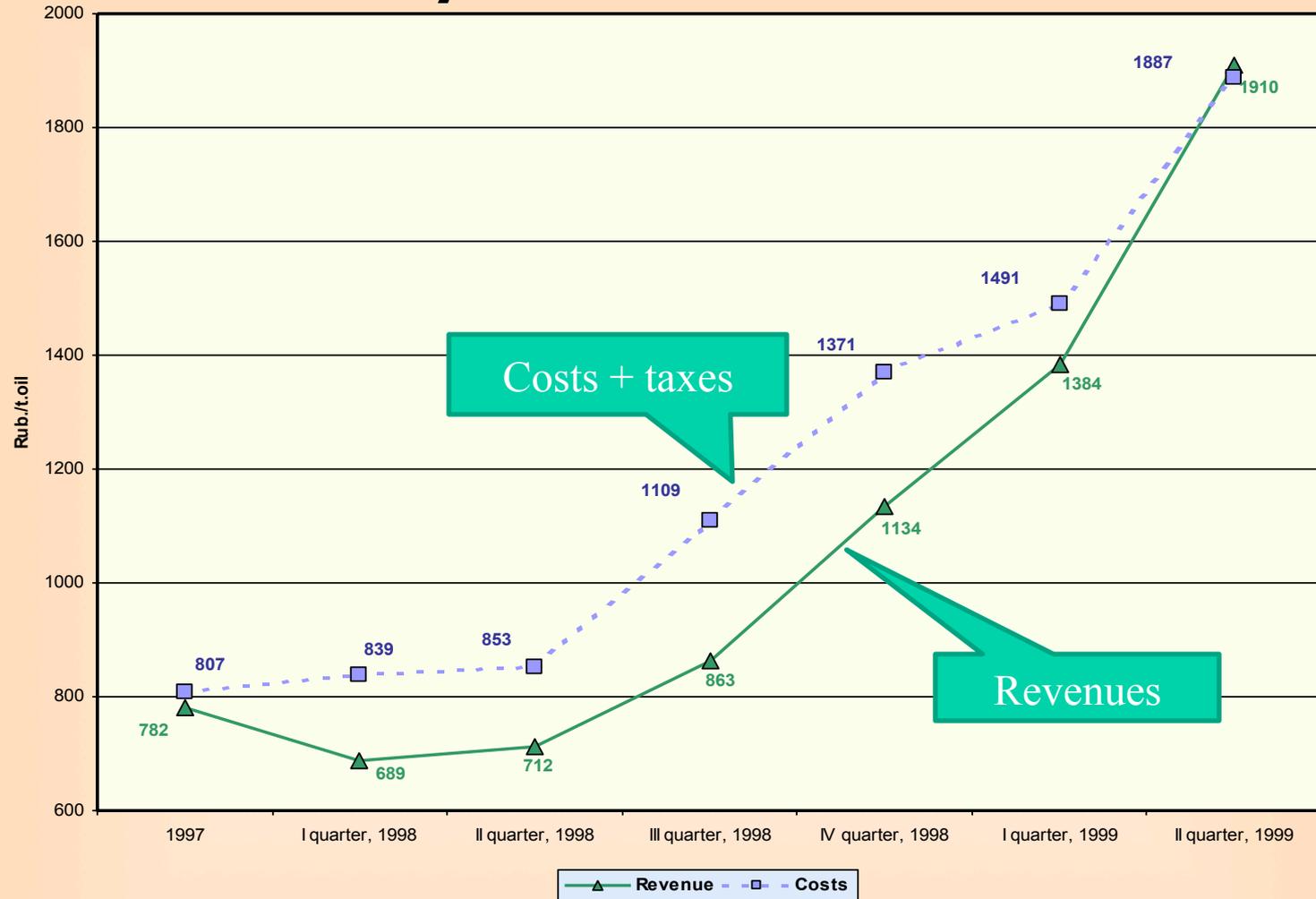


## Figure 4. Major periods of oil taxation development in Russia

- 1) **1991-1996:** Development of tax system within market-oriented economy started. Licensing system of subsoil use (Law “On Subsoil”) allows multiple investment regimes with different taxation models. Payments for subsoil use (royalty) introduced with differentiated levels. Law on concessions and other petroleum agreements (for foreign investors only) approved by Supreme Council but vetoed by President. PSA regime established (Law “On PSAs”). Law on concessions (second version – for foreign & domestic investors) has not passed State Duma. Tax legislation is not codified.
- 2) **1997-2000:** Tax Code introduced. Tax Code chapter on “tax on incremental earnings” adopted in first reading. Differentiated tax regime de facto in place under licensing with differentiated royalty. PSA regime further developed.
- 3) **2001-mid 2003:** Transition from differentiated to unified tax regime. Substitution of royalty, VMSB, excise tax by MRPT. Introduction systemic oil customs export duty. PSA still acting.
- 4) **Mid-2003-2006:** Factual cancellation of PSA regime. Establishment of single & unified tax regime. Law on infrastructure concessions adopted, but excludes subsoil use.
- 5) **2007-nowadays:** Differentiation of MRPT-based tax regime started. Introduction of regional tax concessions (slow beginning of deviation from unified tax regime).
- 6) **2??? & onwards:** Continuation of further differentiation of tax regime (based on economically justified logic) , incl. multiple investment regimes, or ...?

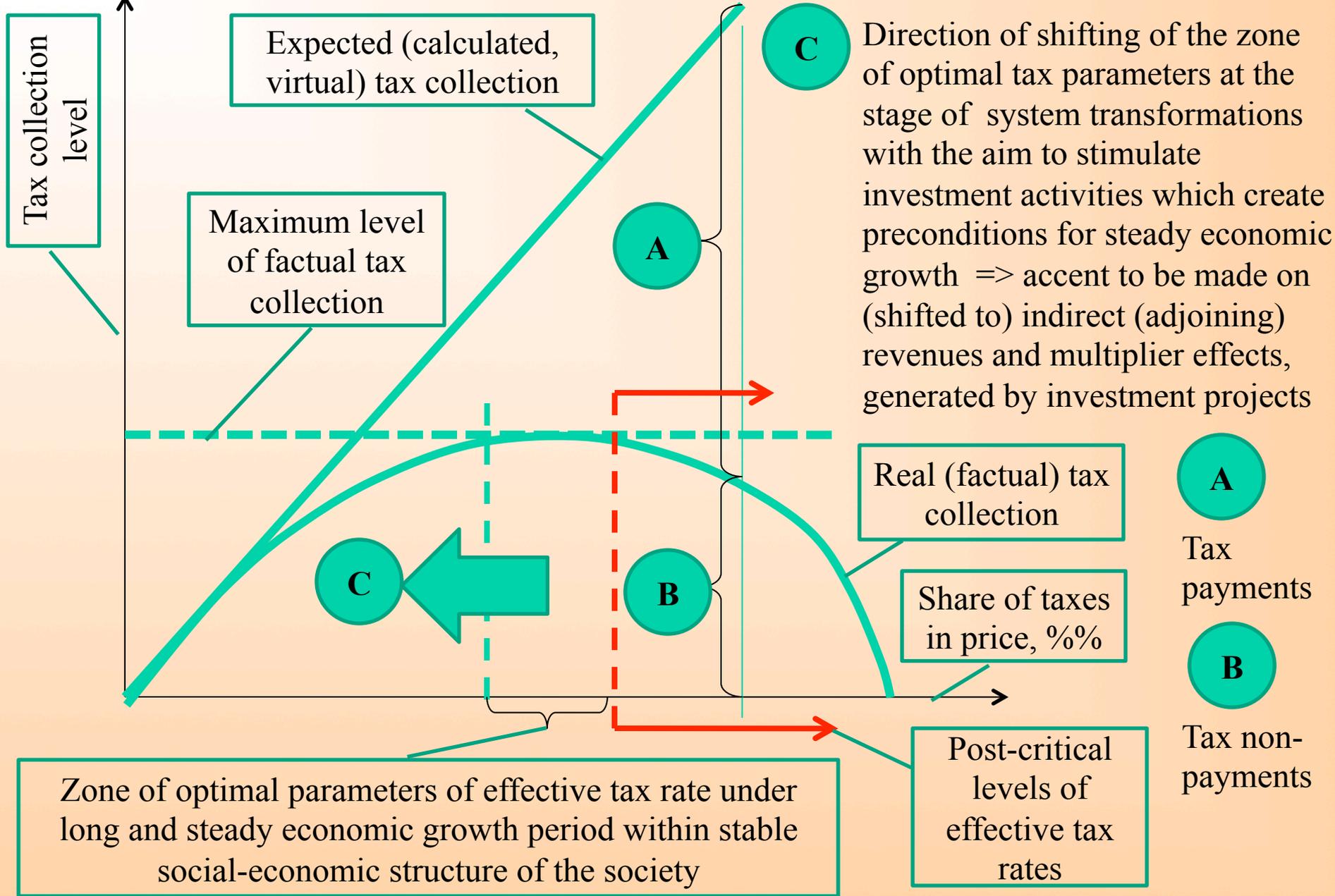
Based on: А.Конопляник. Реформы в нефтяной отрасли России (налоги, СПП, концессии) и их последствия для инвесторов. – М.: «Олита», 2002; Е.Дьячкова. Экономическое регулирование нефтегазовой отрасли в постсоветской России. – М.: ООО «Геоинформмарк», 2011

# Figure 5. Gross revenue and full production costs of Russian oil industry in the second half of the 1990-ies

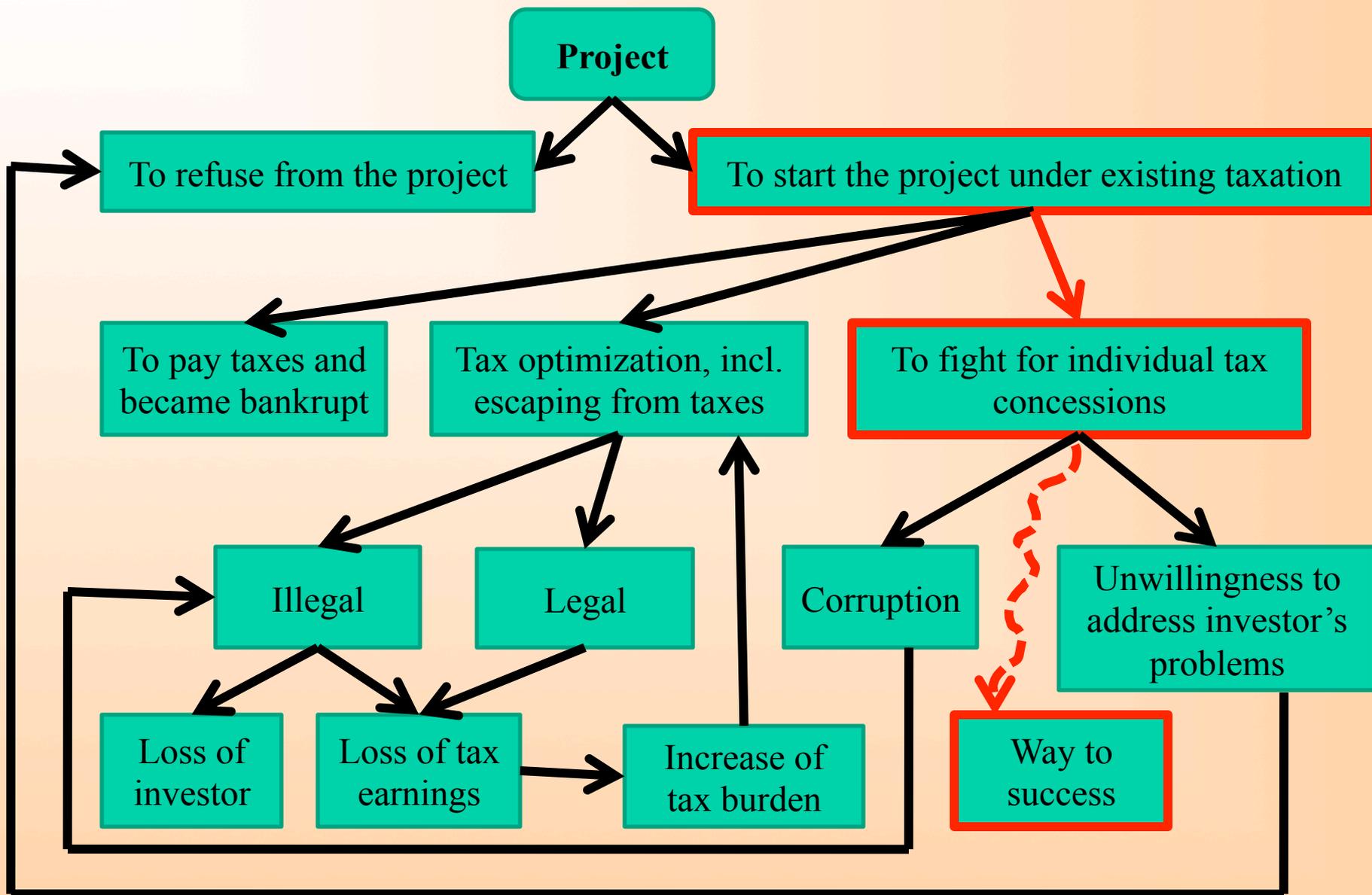


Source: Основные концептуальные положения развития нефтегазового комплекса России. – М., Минтопэнерго, 2000 («Нефтегазовая Вертикаль», 2000, №1, спецвыпуск)

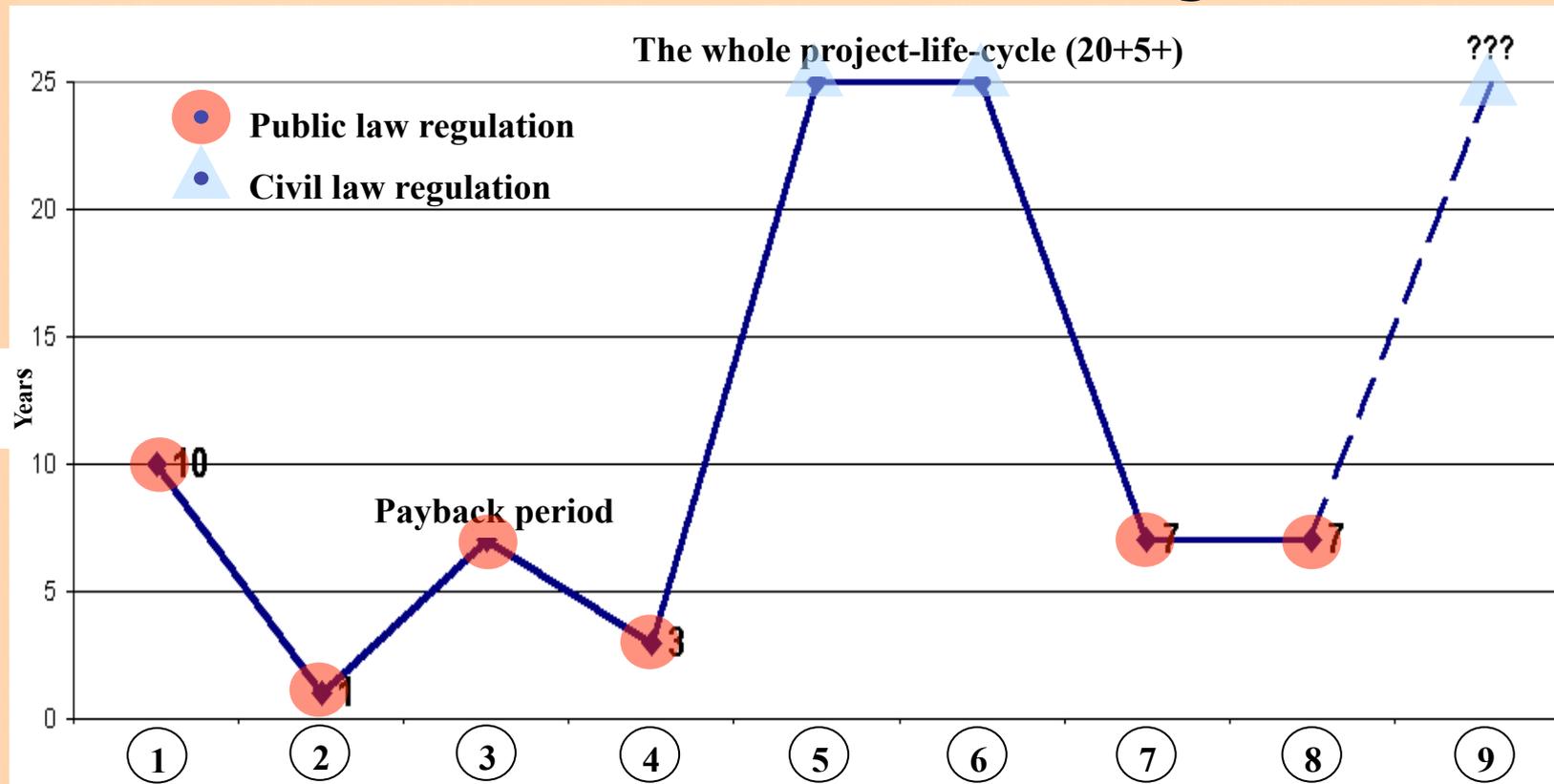
**Figure 6. Dynamics of expected and factual tax collection with the growth of effective tax rate (effect of Laffer's curve)**



**Figure 7. Possible options of investor's behaviour within restrictive tax environment**

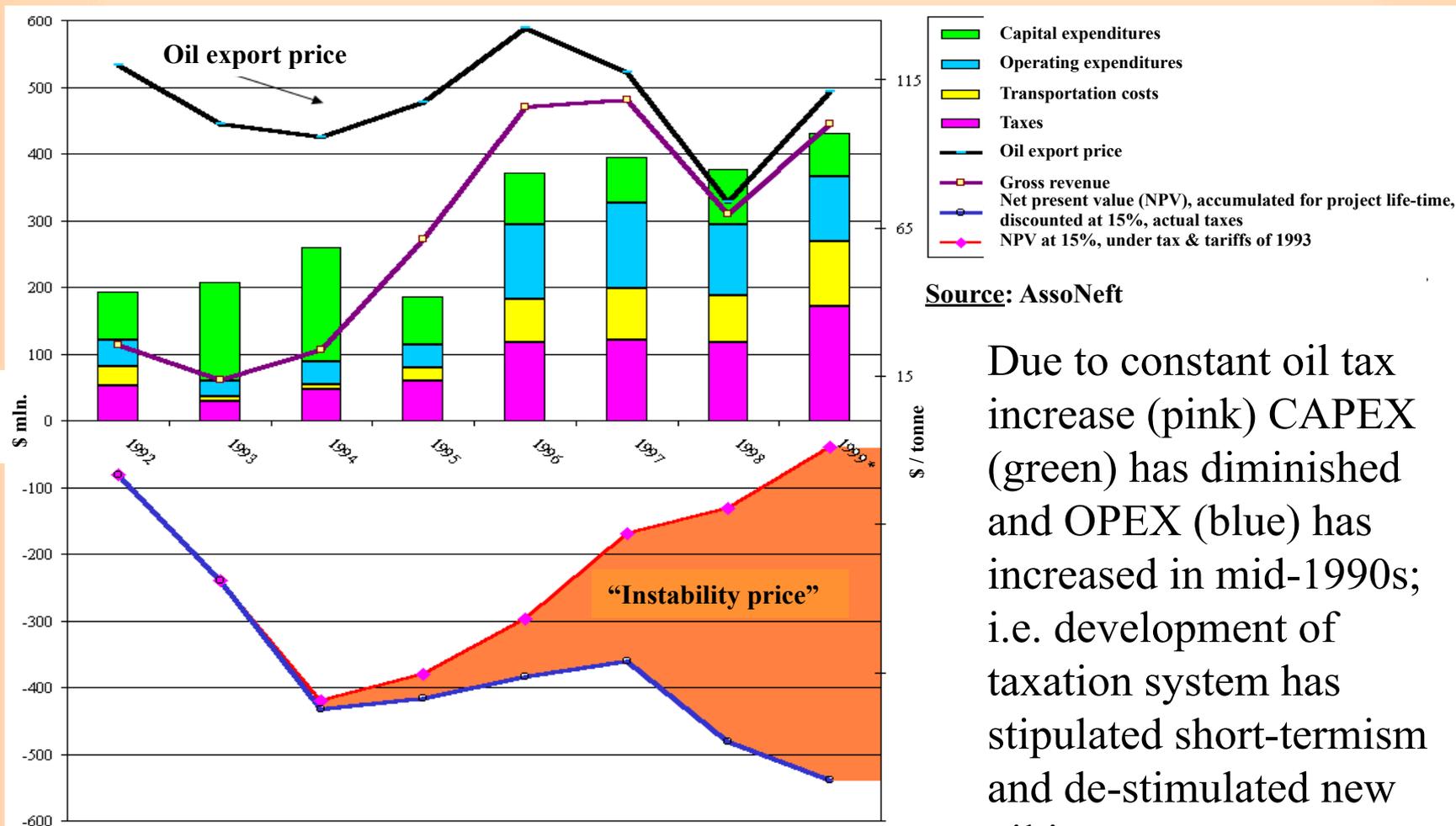


# Figure 8. Duration of the stabilization (grandfather's) clause in Russian investment-related legislation



1. Fundamentals of the USSR legislation on Foreign Investments (June 1991)
2. Law "On Foreign Investments in the RSFSR" (July 1991)
3. Decision of the Government of RF №1375 (July 1992)
4. Decree of the President of RF №1466 (September 1993)
5. Decree of the President of RF №2285 (December 1993)
6. Law "On Production-Sharing Agreements" (December 1995)
7. Law "On Investment Activities in RF, Implemented in the Form of Capital Expenditures" (February 1999)
8. Law "On Foreign Investments in RF" (July 1999)
9. Draft Law "On Concessions" (2003+?)

# Figure 9. “Instability price” of the Russian oil tax legislation (for a group of non-integrated oil companies)

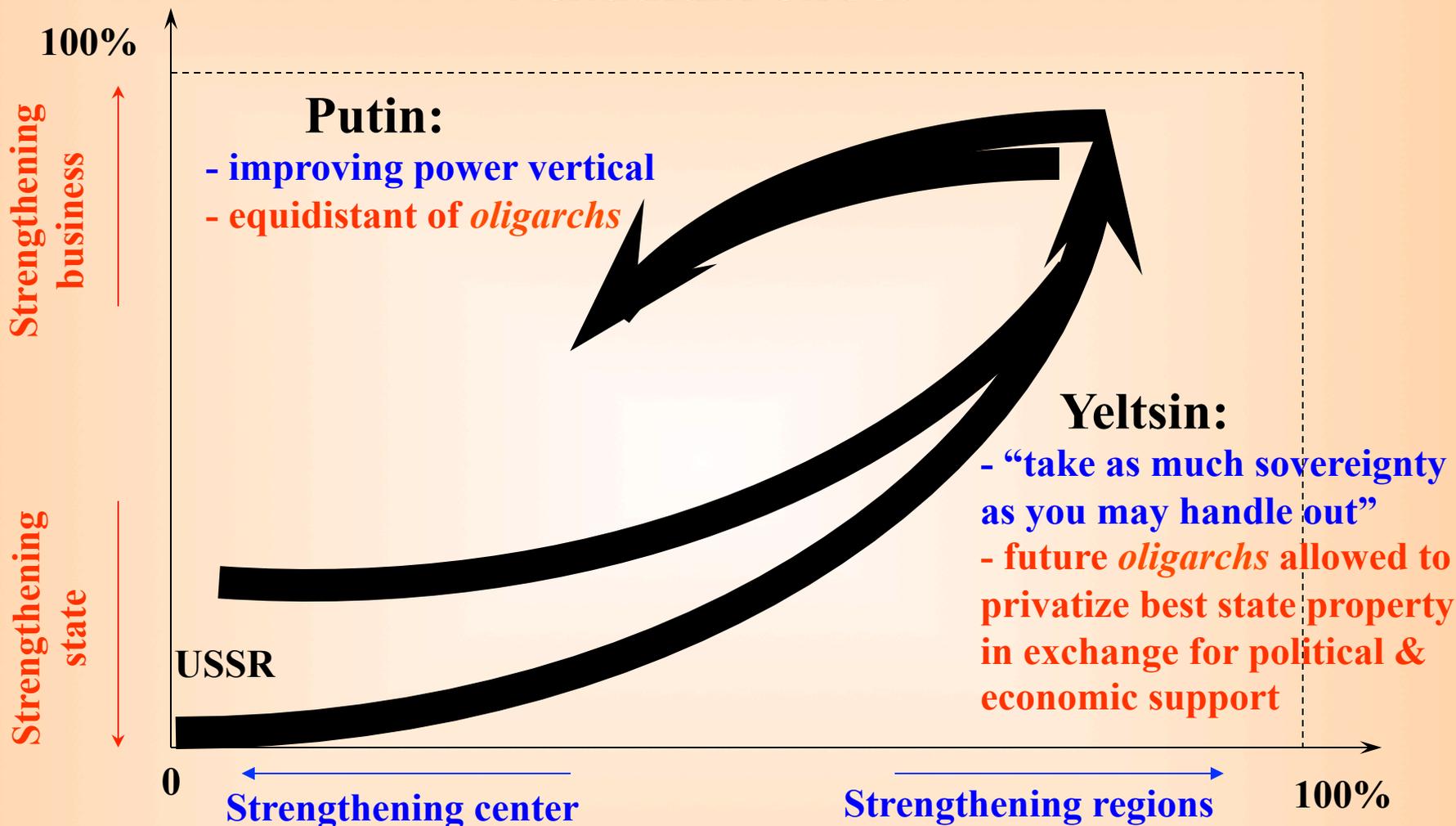


Source: AssoNeft

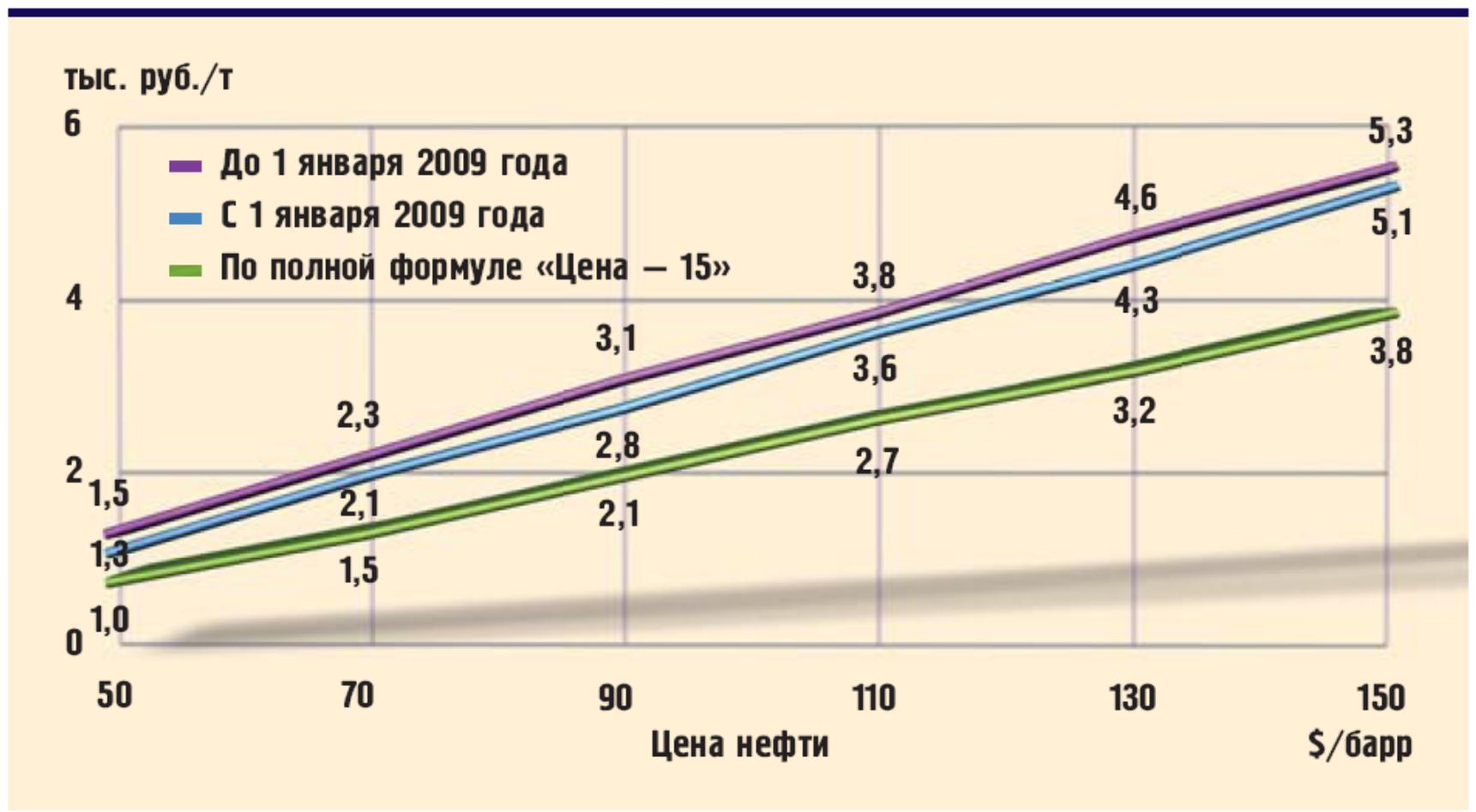
Due to constant oil tax increase (pink) CAPEX (green) has diminished and OPEX (blue) has increased in mid-1990s; i.e. development of taxation system has stipulated short-termism and de-stimulated new oil investments

In the 1990s negative NPV has increased almost 2-fold (“instability price” equals almost 100%) => killing existing JVs established on project financing basis

**Figure 10. Evolution of state economic policy in Russia – a “Pendulum effect”**



# Figure 11. MRPT (NDPI) rate vs. oil price

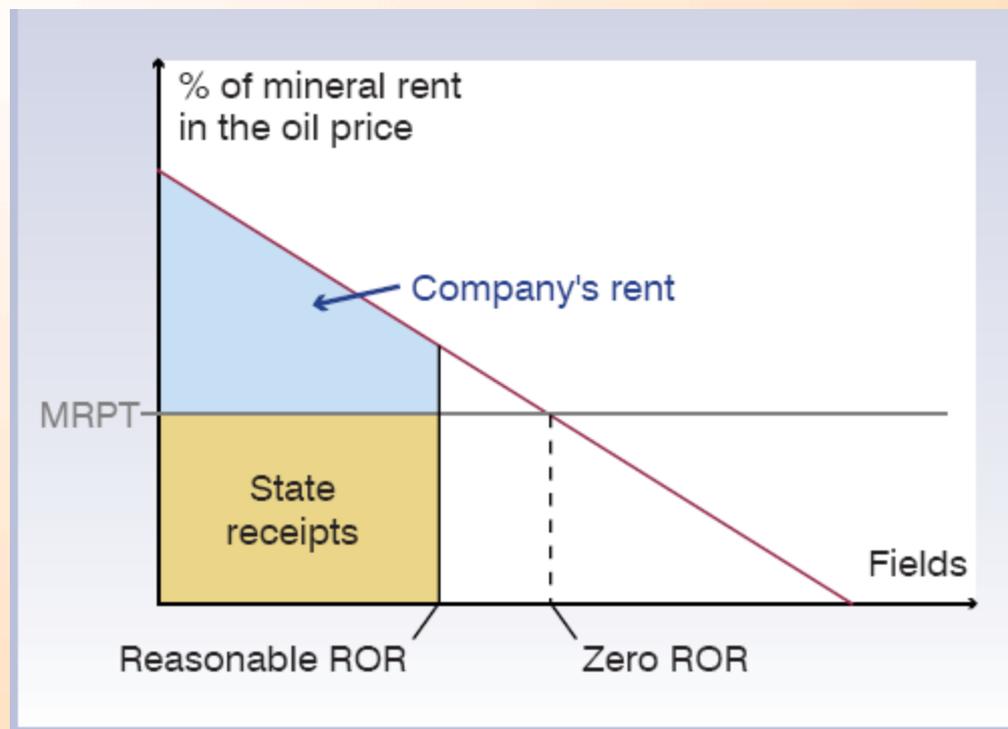


MRPT = Mineral Resources Production Tax;

NDPI = Налог на Добычу Полезных Ископаемых (original Russian title of MRPT)

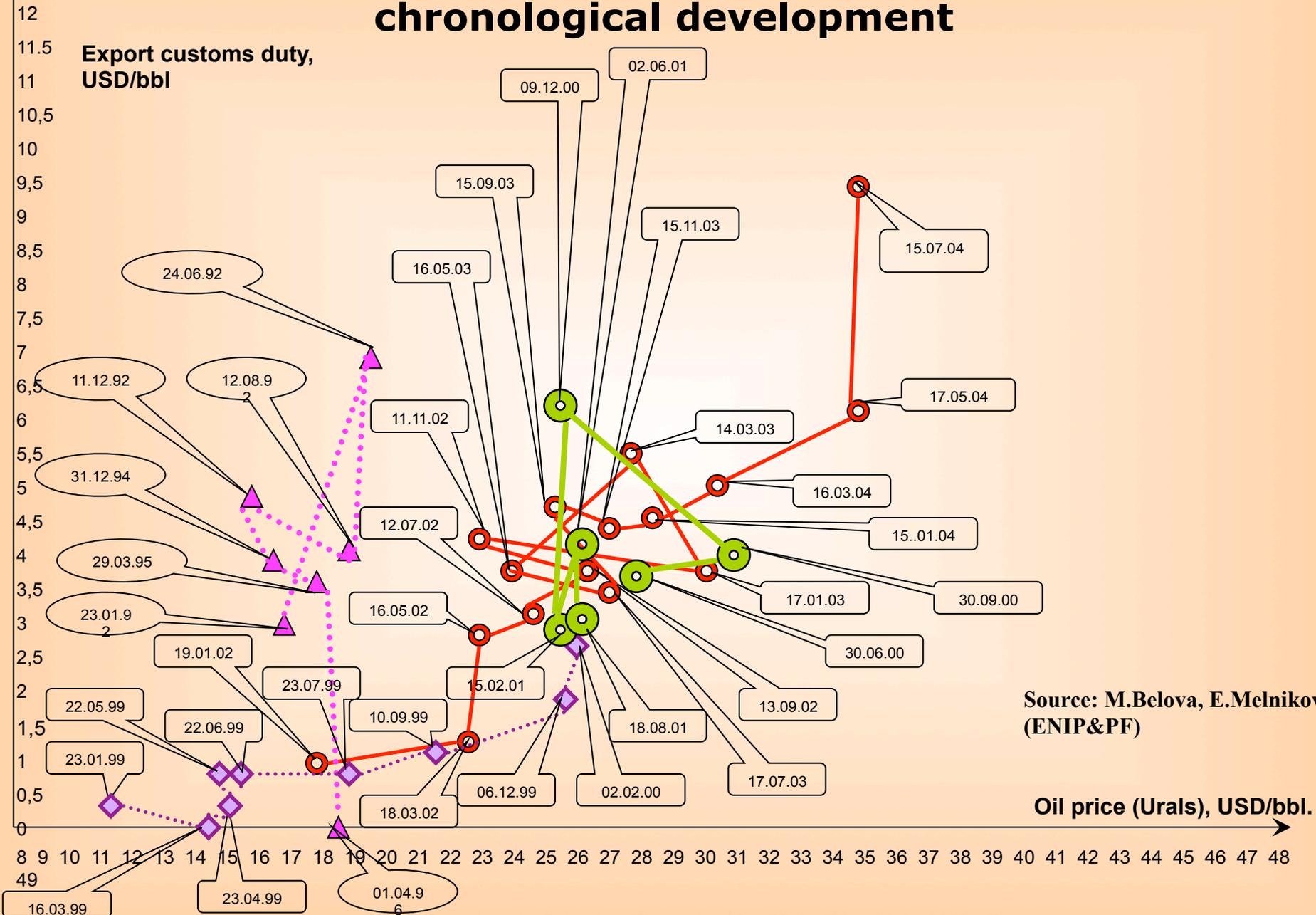
Source: А.Мещерин. Налогообложение: ножницы Кудрина и пряники для избранных. – «Нефтегазовая вертикаль», 2010, #5, с.21.

## Figure 12. Flat-rate oil tax system: why & what the state loose



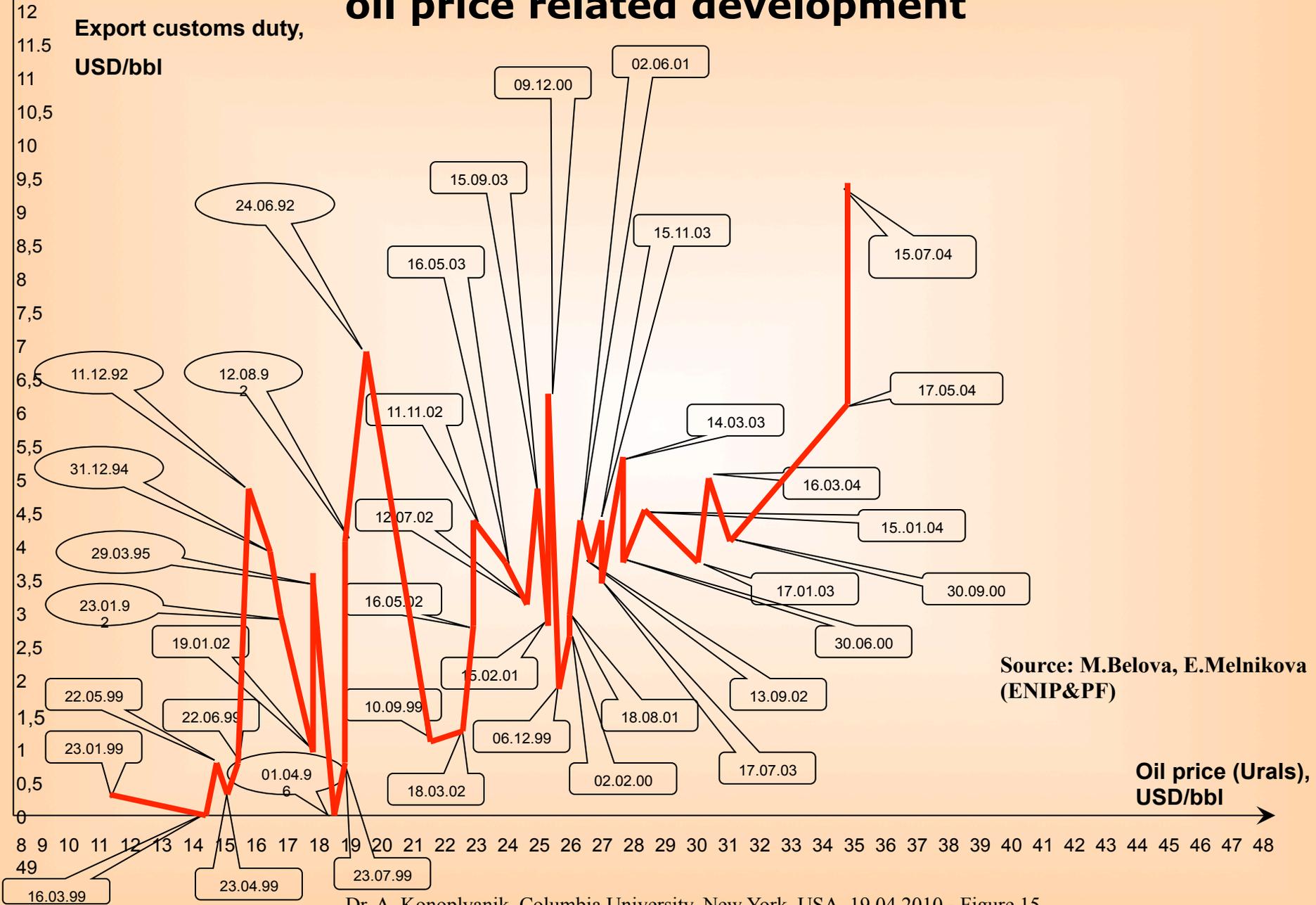
Source: A.Konoplyanik. A struggle for mineral rent. - *"Petroleum Economist"*, August 2003, p. 23 – 24; Андрей Конопляник: «Ухудшение экономических условий возвращает на повестку дня законодателей вопрос целесообразности реабилитации СРП». – *«Нефть и капитал»*, 2009, № 3, с.18-23.

# Figure 13. Export customs duty development in the 1990-ies: chronological development

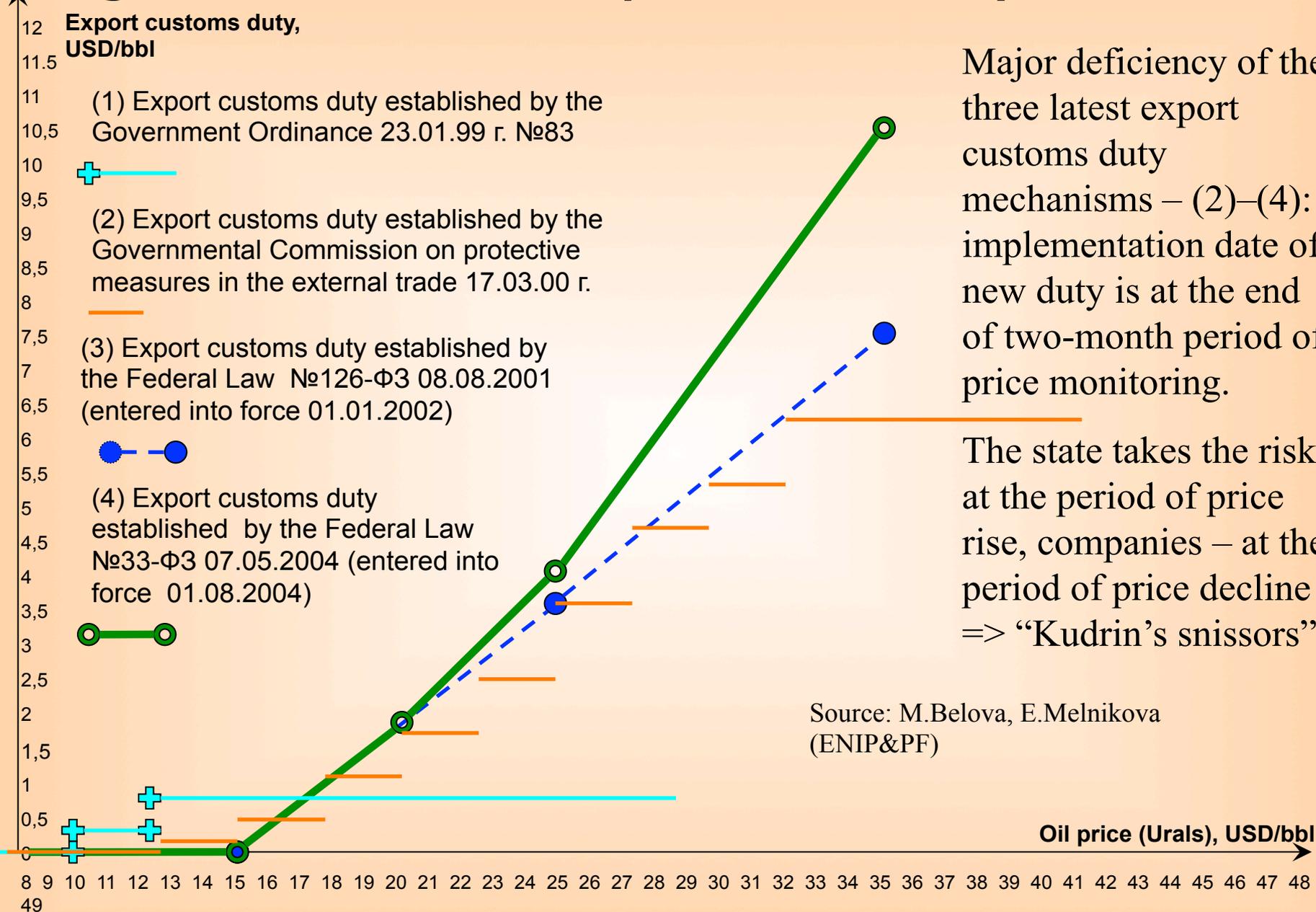


Source: M.Belova, E.Melnikova (ENIP&PF)

# Figure 14: Export customs duty development in the 1990-ies: oil price related development



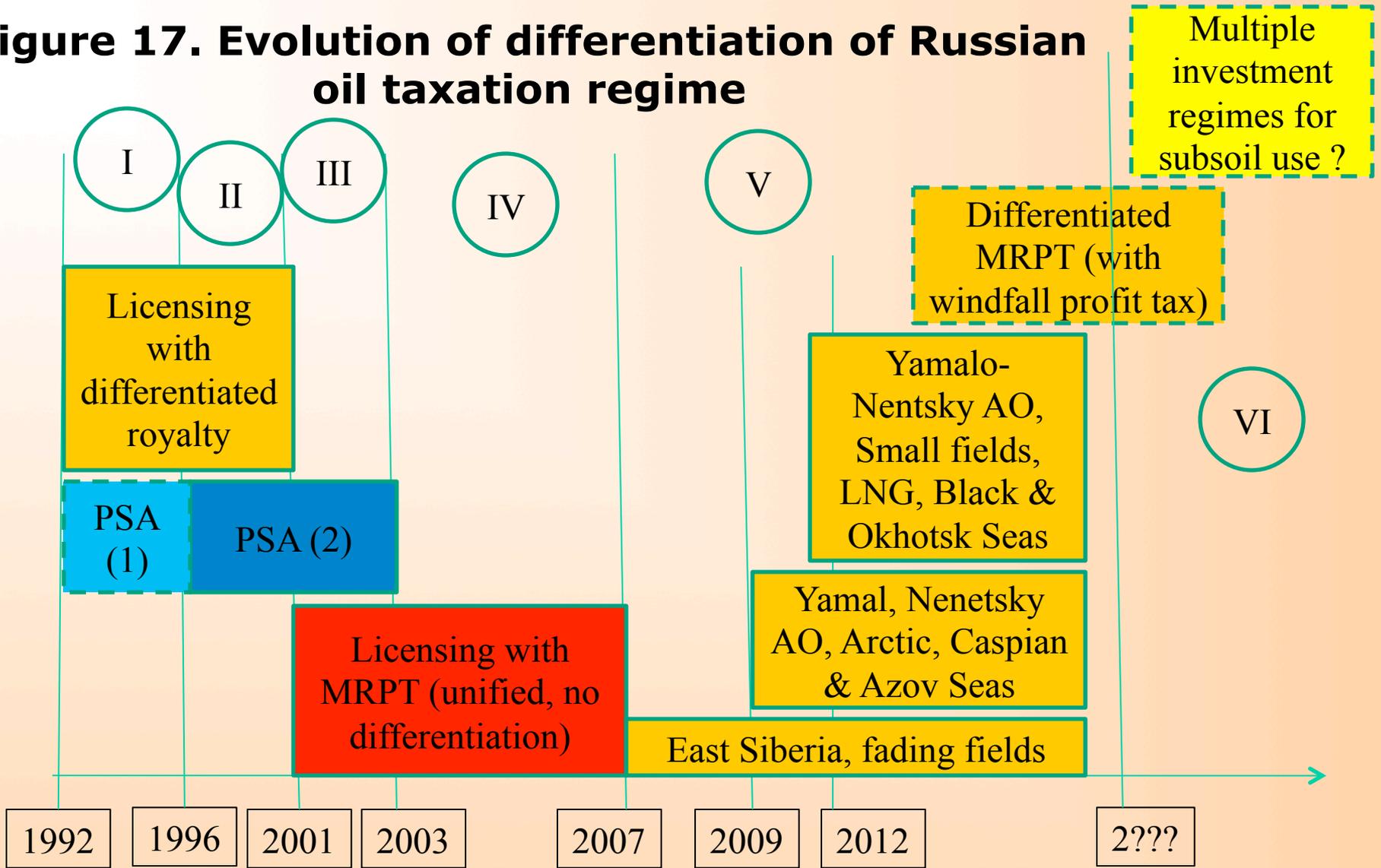
# Figure 15. Evolution of export customs duty mechanisms



**Figure 16. Investment-related stimuli in upstream oil taxation in Russia under licensing system: pre vs. post 2002**

Stages of oil field development	Pro-investment stimuli in oil producers' taxation under the concept of its efficient (non-fiscal) formation	Presence of pro-investment stimuli in taxation of oil producers:	
		In <b>pre-2002</b> Russian tax legislation	In <b>post-2002</b> Russian tax legislation
Early	Diminishing of tax burden, especially of revenue-based taxes, shift of tax burden from early to mature stage: tax holidays, tax credits & tax-related uplift at oil field investment stages	Partly existed (investment-related concession on profit tax up to 50% of the tax-base of the latter)	No
Mature	Sliding scale (project-to-project differentiation) of taxation linked to the factors of mineral rent formation	Partly existed in indirect form through negotiable character of establishing royalty value in licensing agreement	Basically no; except one common factor (reflecting changes in world oil prices, i.e. Brent spot dated) which does not consider stages of field development, different oil qualities, domestic price changes, real export quotas, etc.
Late	Reserves depletion allowance, dependent on system of factors	Basically no. Few regions (i.e. Tatarstan) has been using it for marginal wells/fields via mechanism of diminishing a regional portion of the profit tax	No
Fading	Reserves depletion allowance, dependent on system of factors, up to zero rate of special oil taxes		No

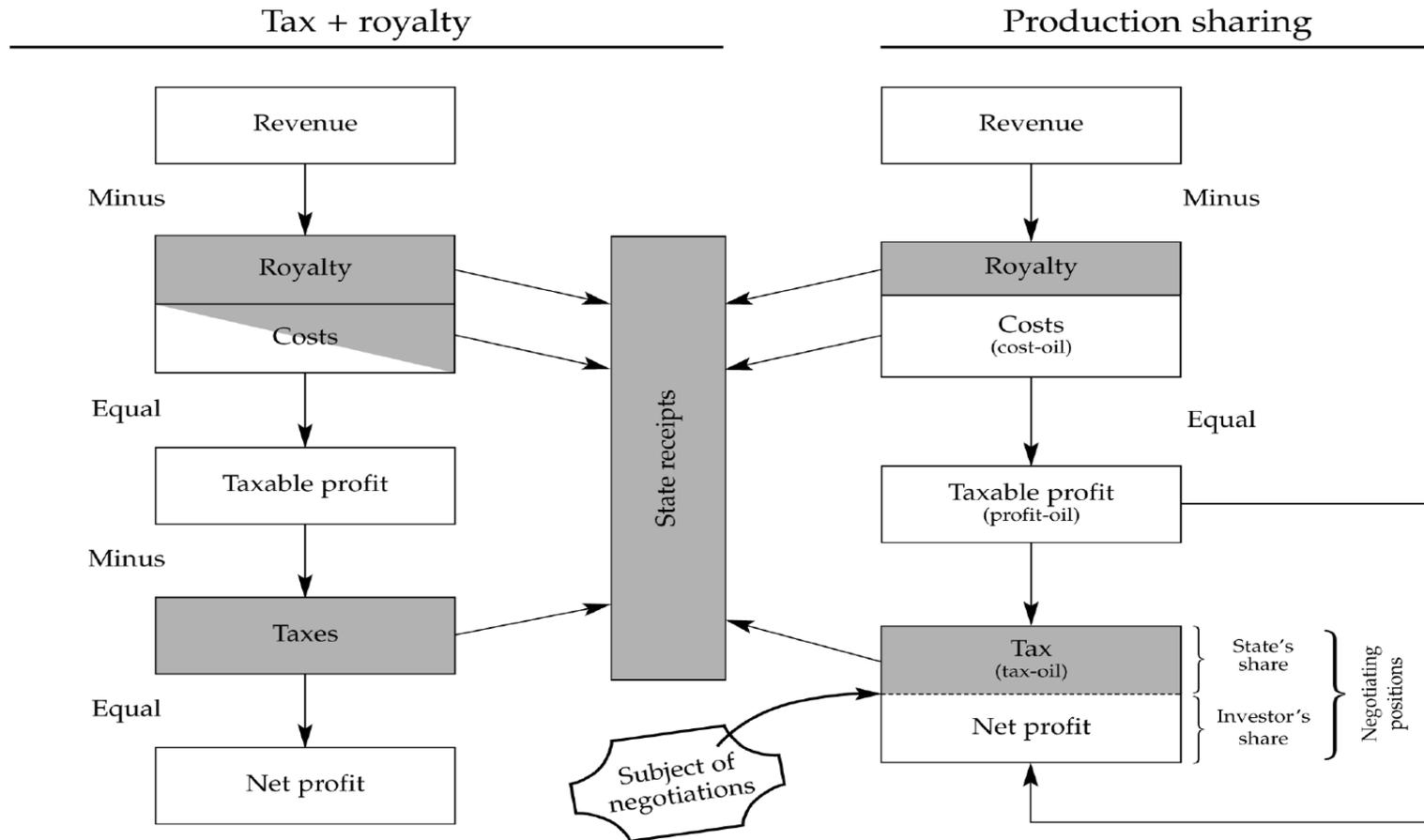
# Figure 17. Evolution of differentiation of Russian oil taxation regime



**Legend:** (i) colours correspond to that of investment regimes as in Figure 26; (ii) PSA (1): 3 acting PSA projects in Russia; (iii) PSA(2): period of factual action of PSA Law; (iv) Roman figures in circles – periods as in Figure 4

Based on: Е.Дьячкова. Экономическое регулирование нефтегазовой отрасли в постсоветской России. – М.: ООО «Геоинформмарк», 2011

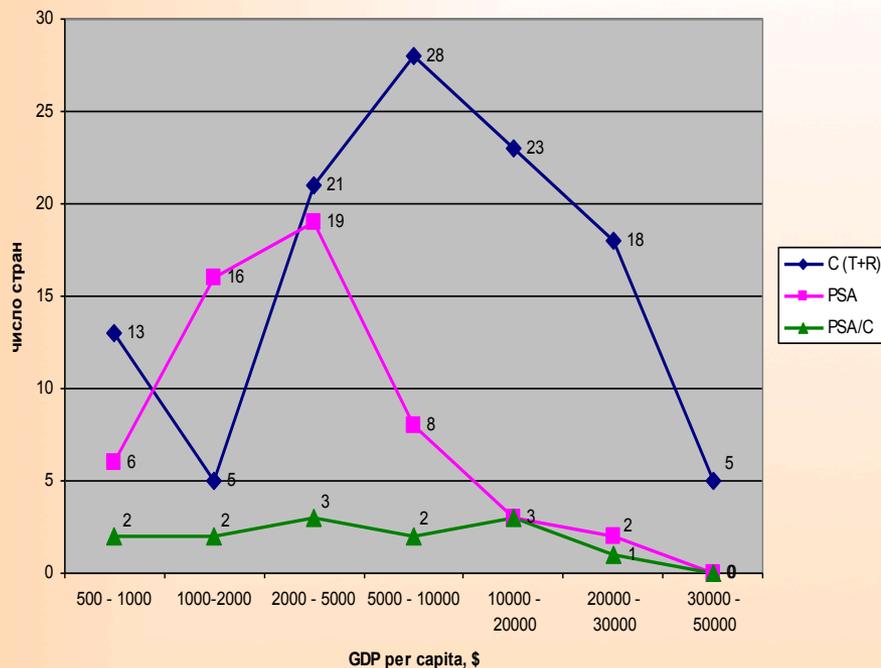
# Figure 18. Basic difference between "tax plus royalty" and PSA regime



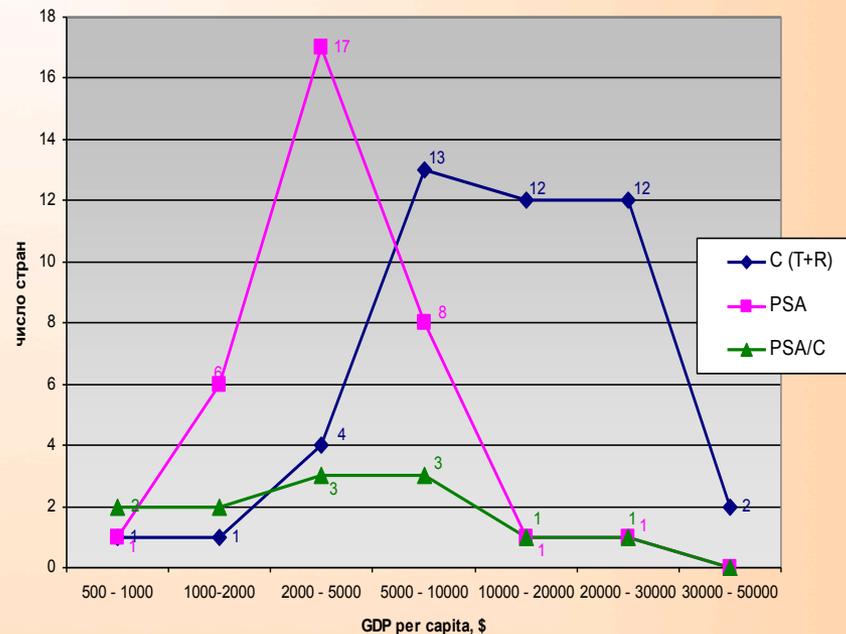
Source: A. Konopliyanik. *Complex approach for attracting foreign investments into Russian energy*. Dissertation in form of scientific presentation for Doctor of Economics degree. Moscow, State Academy of Management named after S. Ordjonikidze, 1995, p.81.

# Figure 19. "Tax plus Royalty" (concessions & licenses) vs. PSA worldwide: distribution curves (2004)

(A) By numbers of the states



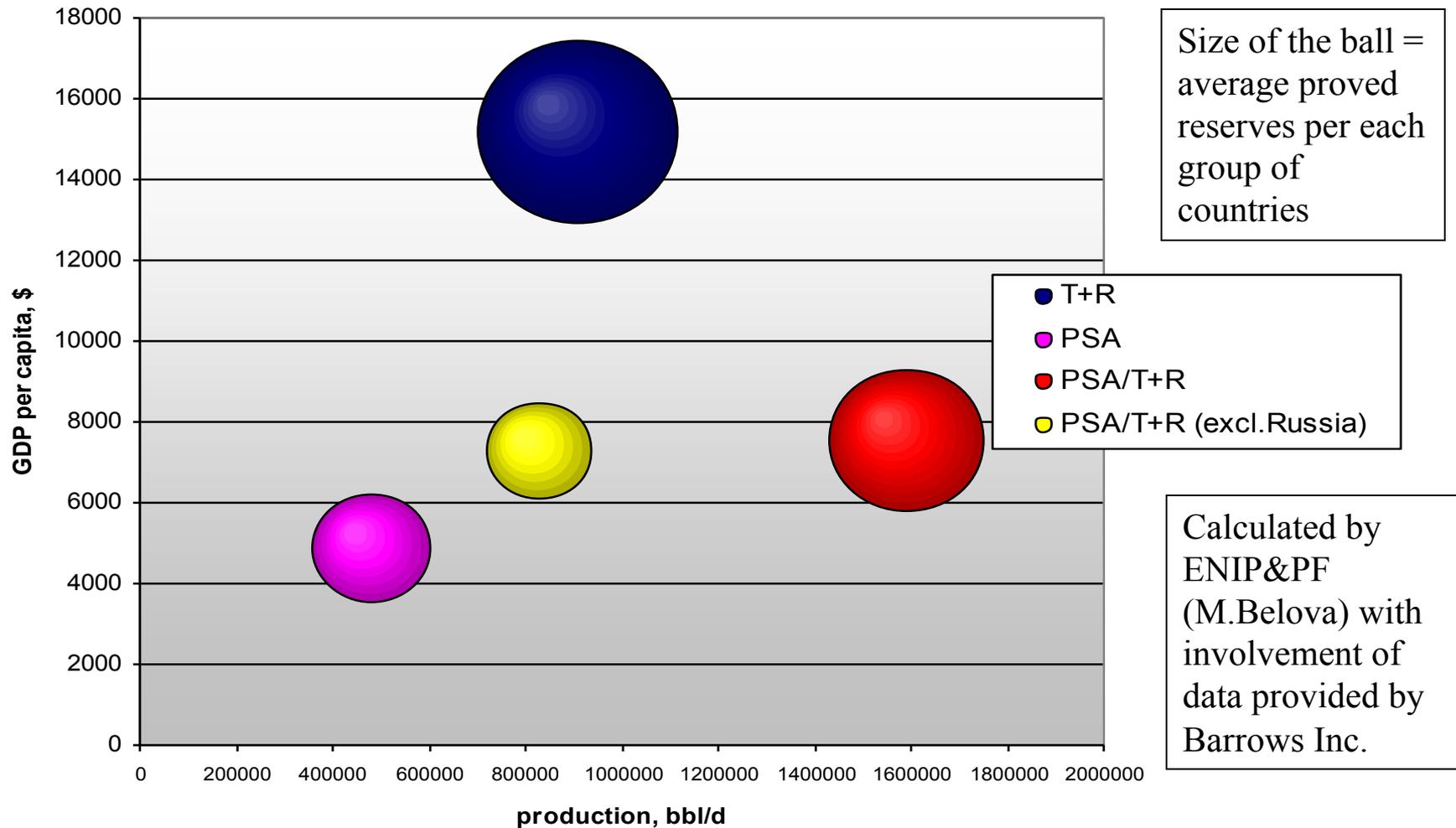
(B) By number of the oil-producing states



**Russia = 8000 USD/capita (2004)**

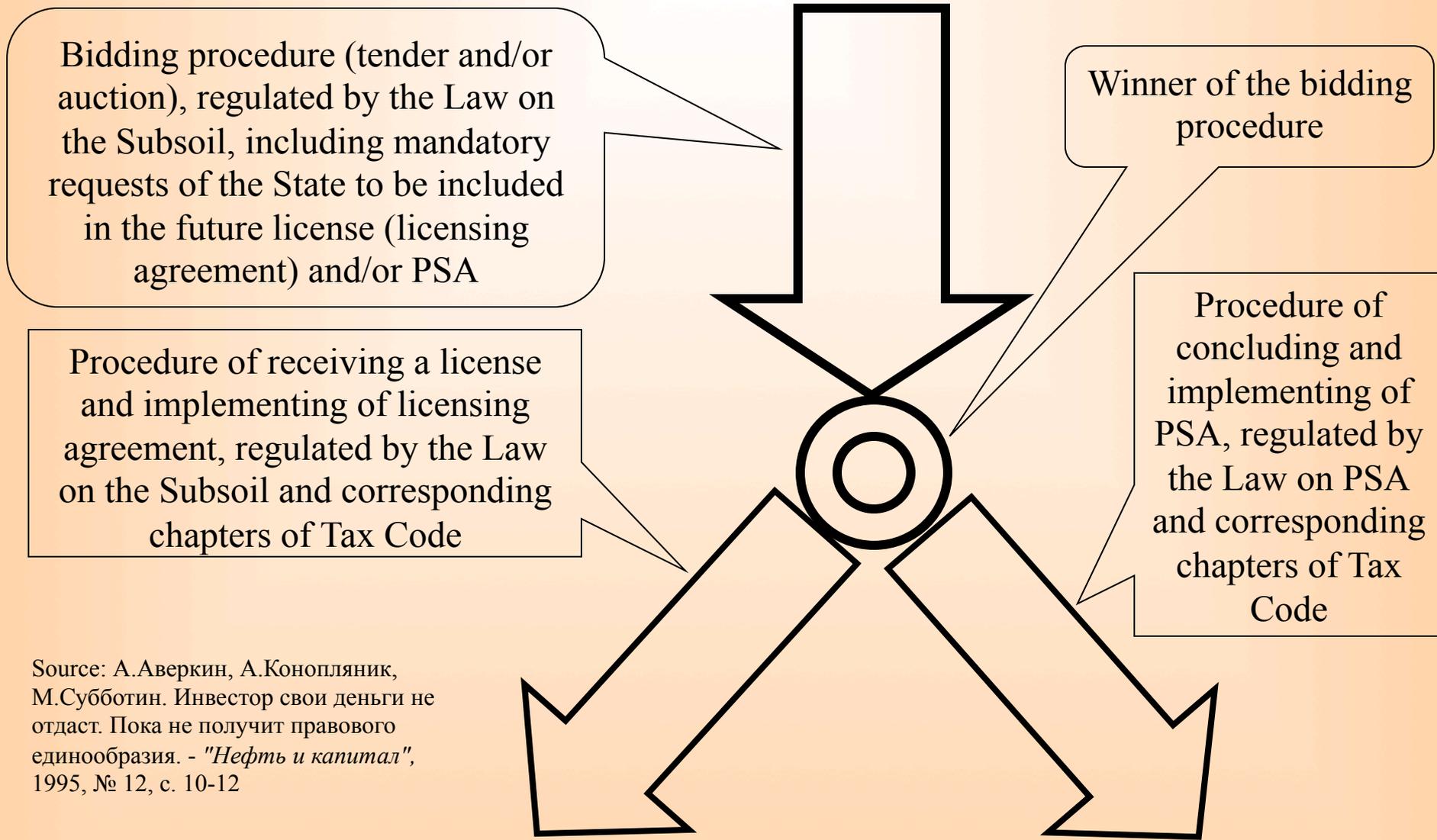
Calculated by ENIP&PF (M.Belova) with involvement of data kindly provided by Barrows Inc. (special personal thanks for this to Mr. Gordon Barrows)

# Figure 20. Oil taxation models vs. average GDP per capita, oil production and reserves (2004)



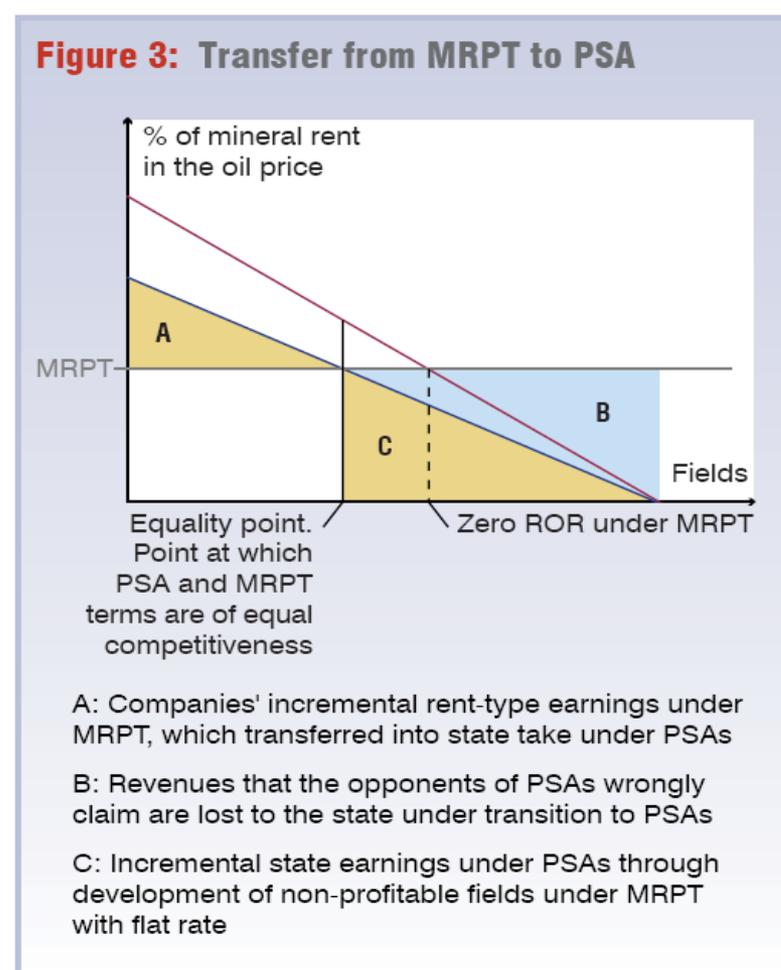
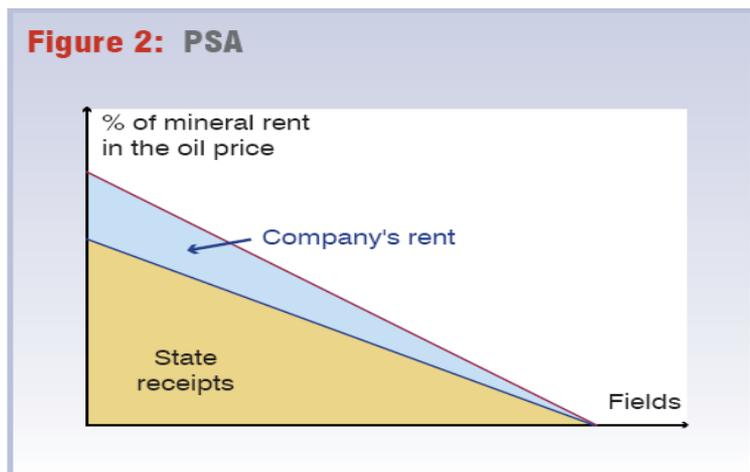
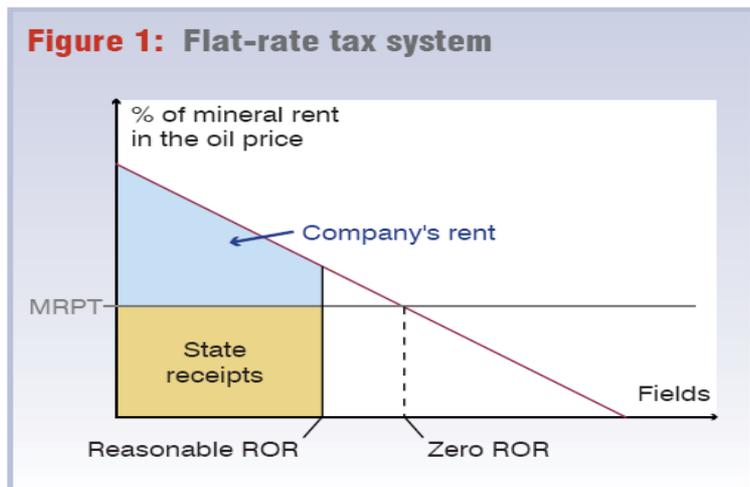
Source: A. Konoplianiuk. Russian Oil Taxation System Development (a continuous debate between supporters of fiscal-oriented and investment-oriented approaches). - 15<sup>th</sup> International Petroleum Tax Conference, 11-12.11.2004, Oslo, Norway

## Figure 21. Two equal regimes (author's historical proposal)



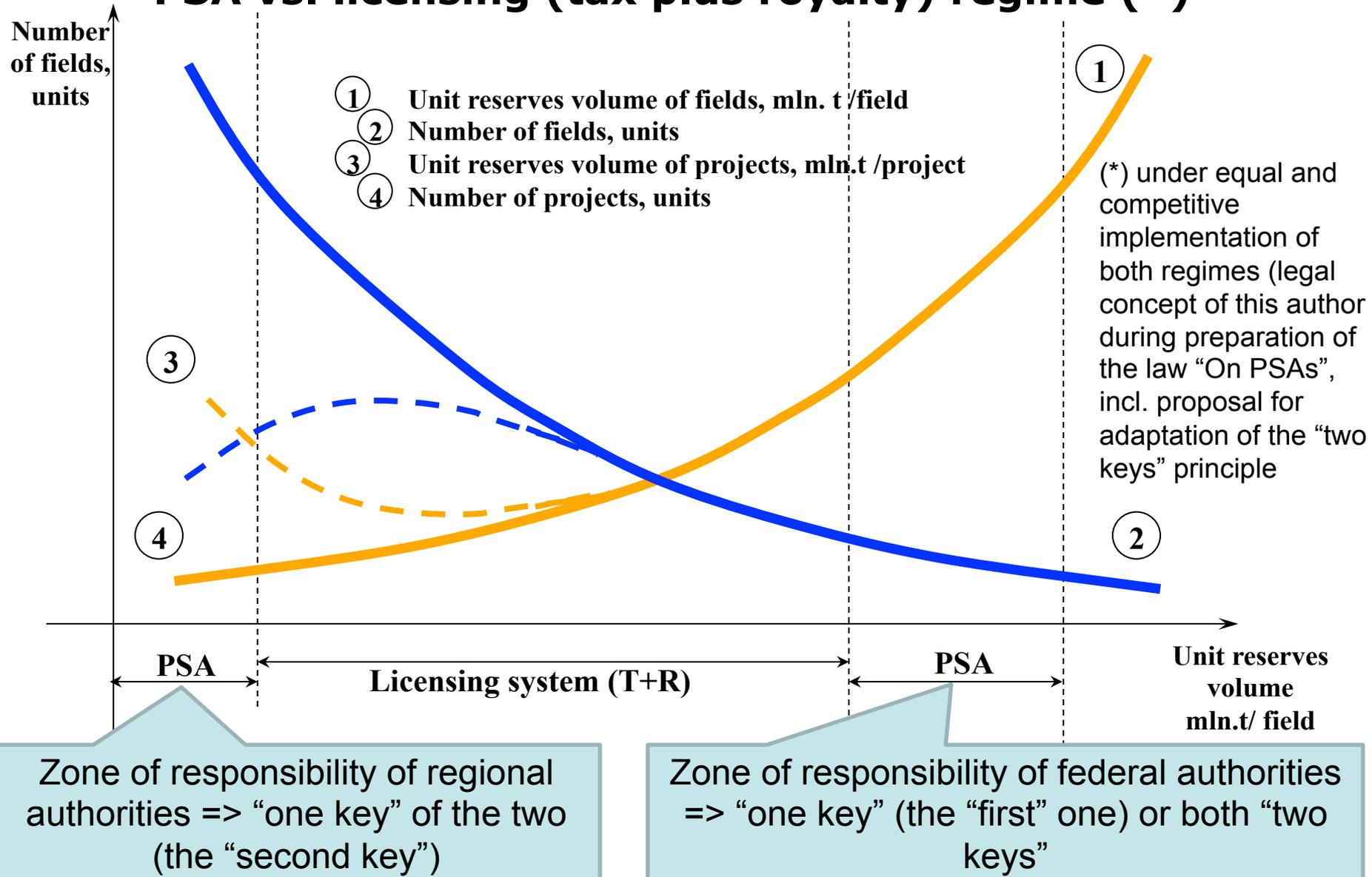
Source: А.Аверкин, А.Конопляник, М.Субботин. Инвестор свои деньги не отдаст. Пока не получит правового единообразия. - *"Нефть и капитал"*, 1995, № 12, с. 10-12

# Figure 22. Comparison of flat-rate MRPT and PSA systems



Source: A.Konoplyanik. A struggle for mineral rent. - *"Petroleum Economist"*, August 2003, p. 23 – 24; Андрей Конопляник: «Ухудшение экономических условий возвращает на повестку дня законодателей вопрос целесообразности реабилитации СРП». – *«Нефть и капитал»*, 2009, № 3, с.18-23.

# Figure 23. Zones of competitive preferential application for PSA vs. licensing (tax plus royalty) regime (\*)



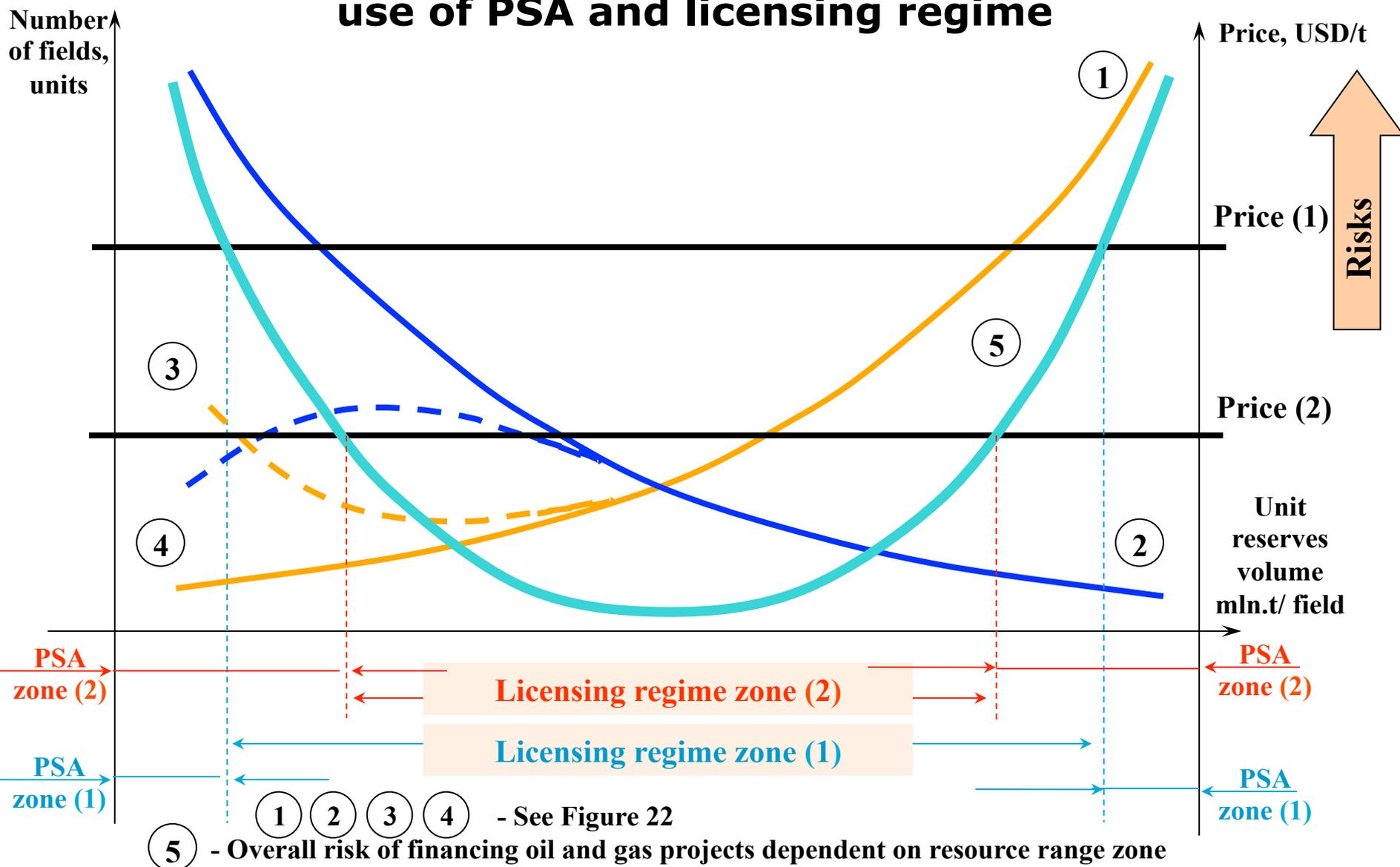
Based on: A.Konoplyanik. The Fight Against PSAs In Russia: Who is to Benefit and Why Not the State? – "International Energy Law & Taxation Review", Issue 10, October 2003, p.277-286.

# Figure 24. Cumulated DCF/NPV of individual fields and of united project combined of these fields (Udmurtia project case)



Source: В.Грушин, А.Конопляник, Н.Оксенгорн. О порядке перевода мелких месторождений углеводородов на режим СРП (в порядке обсуждения). – «Нефтяное хозяйство», июнь 2002, № 6, с.83-89.

# Figure 25. Flexible boundaries between zones of preferential use of PSA and licensing regime



Source: A.Konoplyanik. The Fight Against PSAs In Russia: Who is to Benefit and Why Not the State? – “International Energy Law & Taxation Review”, Issue 10, October 2003, p.277-286; Андрей Конопляник: «Ухудшение экономических условий возвращает на повестку дня законодателей вопрос целесообразности реабилитации СРП». – «Нефть и капитал», 2009, № 3, с.18-23.

**Figure 26. Possible composition of investment regimes (investment matrix/menu) for Russian subsoil use (within legal vs. taxation axes)**

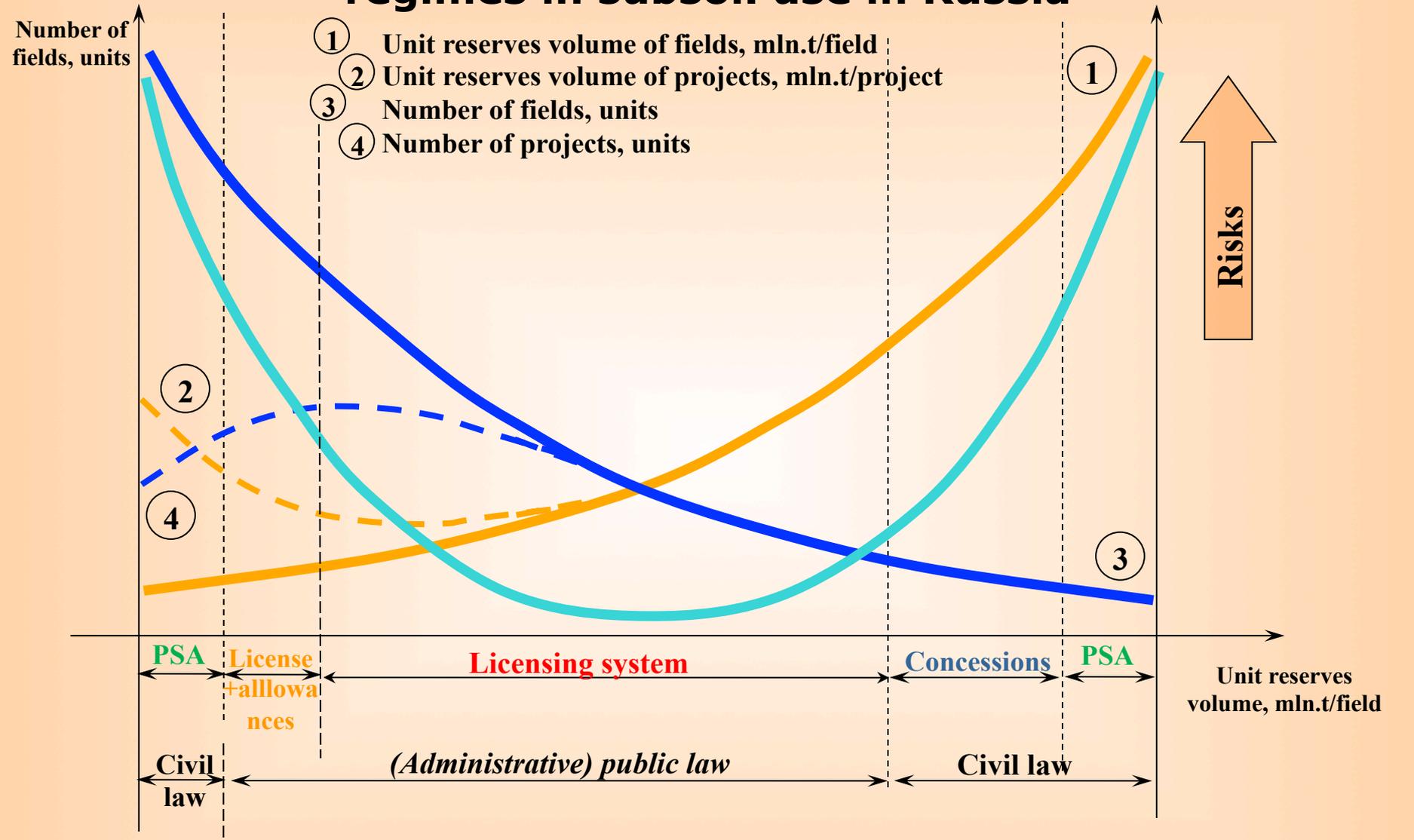
**Key idea: to create competition between investment regimes for investor**

		Legal system	
		Administrative (public)	Civil
Tax treatment	General (common)	<b>Licenses</b> <span style="color: red; font-size: 2em;">①</span>	<b>Concessions</b> <span style="color: blue; font-size: 2em;">③</span>
	Special (incl. individualized)	<b>Licenses with allowances (differentiated licensing regime)</b> <span style="color: orange; font-size: 2em;">②</span>	<b>PSAs</b> <span style="color: green; font-size: 2em;">④</span>

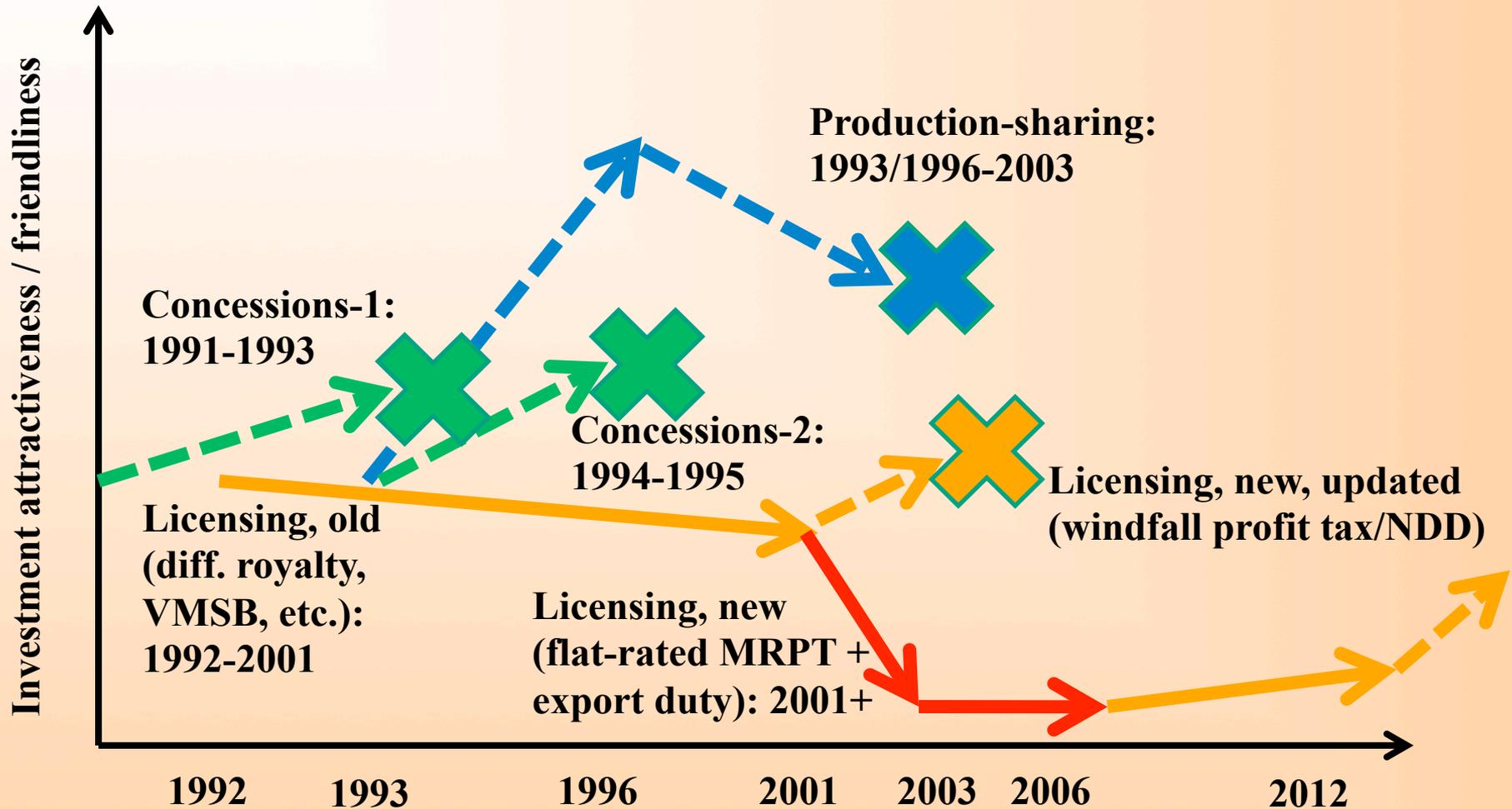
**Figure 27. Different investment regimes in subsoil use: comparative legal & tax advantages/disadvantages**

Investment regime	Investment regime's characteristics during project life-time	
	Tax pressure	Stability
<b>Licensing</b> ①	Non-optimal (high), established unilaterally	No
<b>Licensing with allowances (special / differentiated tax regimes)</b> ②	Non-optimal (high / diminished), established unilaterally	No
<b>Concessions</b> ③	Non-optimal (high), established unilaterally	Yes
<b>PSA</b> ④	Optimal, negotiated	Yes

**Figure 28. Proposed application zones for different investment regimes in subsoil use in Russia**



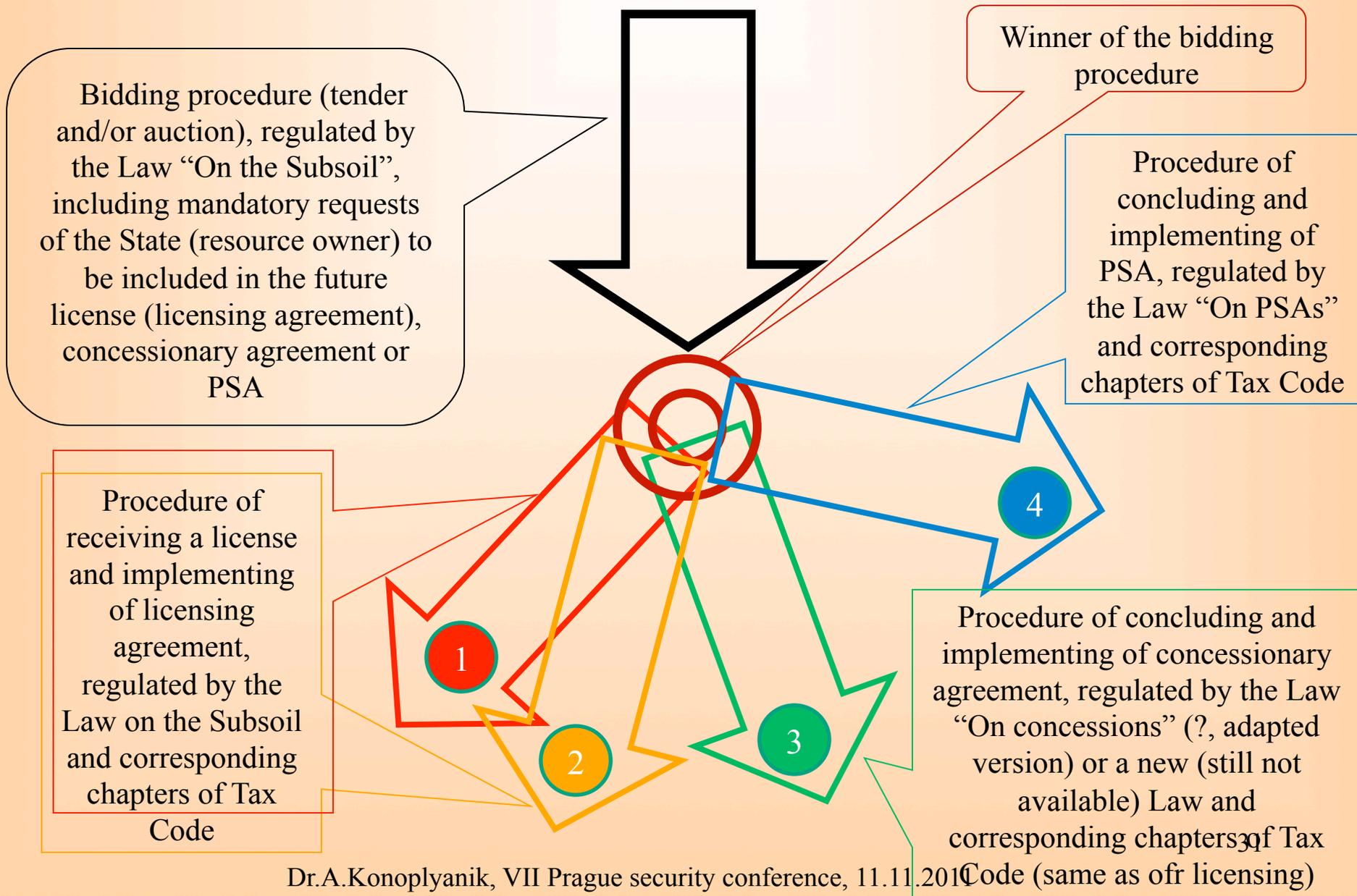
# Figure 29. Russian subsoil legislation development: preferential state's alternatives have been always worsening oil & gas investment climate



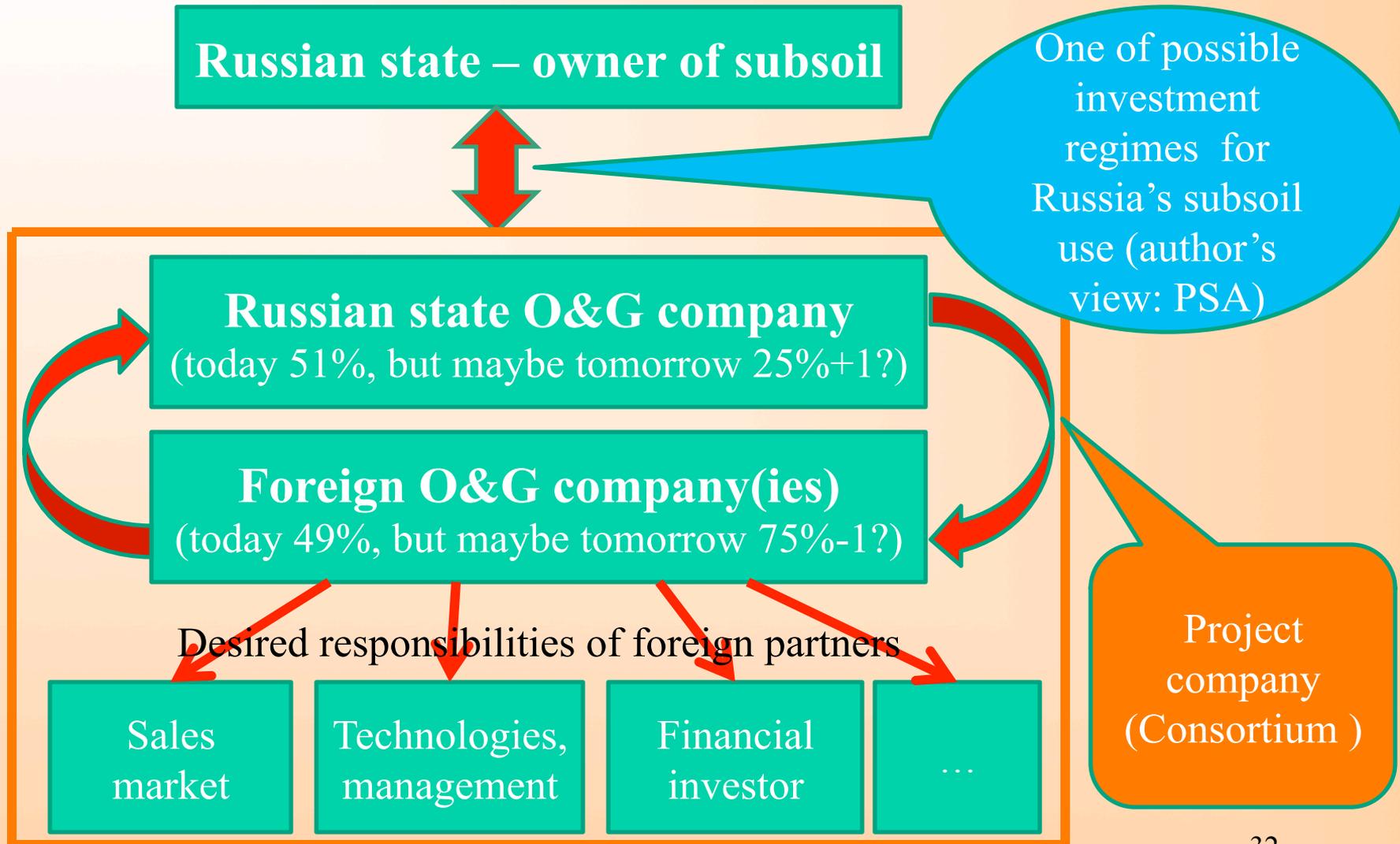
**Figure 30. Evolution of differentiation in tax treatment in Russian investment regimes for subsoil use**



# Figure 31. Equal & competitive investment regimes in Russian subsoil use (historical proposal of the author)



**Figure 32. Possible organizational structure of consortia for Russian Arctic offshore O&G development (within author's concept of multiple investment regimes for subsoil use)**



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