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Economic Growth and Investment Regimes in Subsoil Use and its consequences for Russia (Results of Cross-Country Comparison) by A.A. Konoplyanik

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# Economic Growth and Investment Regimes in Subsoil Use and its consequences for Russia (Results of Cross-Country Comparison)

A.A. Konoplyanik

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## 1. Basic Hypothesis

International practice has the following regimes of subsoil use and related types of investment agreements for the right of subsoil use between the host-state (the owner of subsurface resources) and an investor that has received rights for subsoil use (according to simplified classification of the author<sup>1</sup> – see Figure 1)<sup>2</sup>:

- **concession**: civil law plus unified tax regime for mineral resource extraction based on "tax plus royalty" pattern. In traditional concessions, that existed initially (since first commercial concession D'Arcy concession in Persia dated back to 1901) and are not applied any more, the scope of application was the territory of the host country that sometimes covered all of the latter or its considerable part. In up-to-date concessions, that are applied nowadays, the scope of application is a certain investment project and its area. This means that concessions have been evolving from area-based to project-based investment regime for subsoil use;
- **production-sharing agreement** (PSA): civil law plus individualized pattern of mineral resource rent distribution. The scope of application is a certain investment project and its area by the very nature of this investment instrument. This means that PSA from the very start were a project-based investment regime for subsoil use;
- **license**: public law plus unified tax regime based on "tax plus royalty" pattern. The scope of application is the territory of entire country. It might be possible that differentiation of "tax plus royalty" pattern would be introduced within licensing regime by providing individual derogations from the common tax rules in regard to different onshore/offshore areas and/or different categories of the fields/projects. In such cases application of specific "tax plus royalty" sub-pattern (licenses with allowances or differentiated licensing regime) would be implemented within corresponding territories of the state. This means that evolution of licensing regime took place within both area-based approach and/or within generalized categories of the fields/projects. But the differentiated licensing regime, from this author's view, cannot by definition, due to its public law character evolve further towards project-based investment regime for subsoil use.

<sup>&</sup>lt;sup>1</sup> This author's classification is mostly based on the literature and database provided by the Barrows Inc. and numerous publications and presentations of its Chairman Mr.Gordon Barrows.

<sup>&</sup>lt;sup>2</sup> See. A. Konoplyanik. Main Types and Conditions of Agreements Existing in Oil Industry of Capitalistic States between Transnational Corporations and Host Countries. - "Bulletin of Foreign Commercial Information" (BIKI), 1989, Special Issue # 10, pages 3 – 23; the same author. "Concession Agreement: Possible Place and Role in Investments Legislation in Russia", pages 77 – 92, – in the book: Oil and Gas, Energy and Law, 2001 – 2002. Information Edition on Law Matters in the Fuel and Energy Sector of Russia (annual). – Moscow, "Nestor Economic Publishers", 2001, 244 pages, and other publications of the same author on the same/similar topics; all publications and/or presentations of the author are available at his website (www.konoplyanik.ru).

Figure 1. Possible composition of investment regimes (investment matrix/menu) for subsoil use within legal vs. taxation axes – simplified classification by the author

		Legal system			
	I	Administrative (public) law	Civil law		
ent	General (common)	Licenses 1	Concessions 3		
Tax treatment	Special (incl. individualized)	Licenses with allowances (differentiated licensing regime)	PSAs  4		

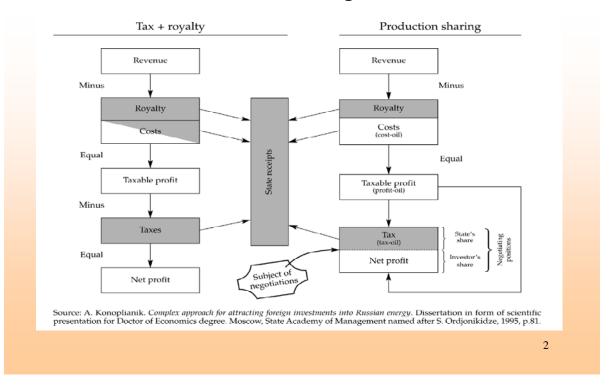
Source: A.Konoplyanik. "Concession Agreement: Possible Place and Role in Investments Legislation in Russia", pages 77–92, – in the book: *Oil and Gas, Energy and Law, 2001 – 2002*. Information Edition on Law Matters in the Fuel and Energy Sector of Russia (annual). – Moscow, "Nestor Economic Publishers", 2001, 244 pages

(Figure 1. Possible composition of investment regimes (investment matrix/menu) for subsoil use within legal vs. taxation axes – simplified classification by the author)

An extremely rare option is a **risk-service contract**. Therefore, only the first three regimes are considered in this work, and analysis covers tax patterns applied within these regimes, such as: generalized/unified pattern or "tax plus royalty" scheme, on the one hand, and individualized/differentiated pattern or "production-sharing" scheme, on the other hand.

The main difference of PSA from concessionary/licensing regime in "tax" terms is the way in which gross revenues (mineral resource rent) are distributed, reallocated between the resource-owning host-state and an investor-subsoil-user within individual project. Licensing and concessionary agreements apply unified/generalized (one for all fields/upstream projects) tax regime according to "tax plus royalty" pattern which is established unilaterally by the host state, while PSA uses a differentiated/individualized pattern of distributing mineral resource rent by establishing in the course of negotiations between the host state and the investor – subsoil user of specific upstream project - the scale of distribution of the pre-tax revenues in such a way which is aimed to (and hopefully will) result in mutually acceptable distribution of marketable resource rent taking into consideration risks and uncertainties of this particular project for both parties, i.e. based on bilateral satisfaction of the parties in case of each individual project (see Figure 2). This is what I call "tax differentiation between individual projects".

Figure 2. Basic difference between "tax plus royalty" and PSA regime regarding mechanism of resource rent collection by resource-owning state



(Figure 2. Basic difference between "tax plus royalty" and PSA regime regarding mechanism of resource rent collection by resource-owning state)

The so-called "sliding scale" of profit-sharing within individual projects allows PSA to differentiate project tax load during its lifecycle shifting the main tax pressure on the stages, where net profit is the largest (at the peak production), and minimizing it at the initial (investment phase) and final (liquidation phase) project stages. This is what I call "tax differentiation *within* individual projects".

Both types of tax differentiation within PSA scheme turned out PSA to be more appropriate for projects that can be referred to marginal conditions, i.e., on both (opposite) margins of the resource range, where on the one side there are extremely large, and usually extremely complicated, predominantly off-shore projects, and the other side includes small deposits. Both project groups are exposed to increased risks. Due to negotiating mechanism of determining proportions of profit-oil sharing, PSA allows to optimize resource rent distribution of individual mining projects for both participants of subsoil-use agreement: the state that owns subsurface resources receives the portion of resource rent, which value is maximum possible in terms of every specific project (i.e. actually attainable in practice), while the investor using subsurface resources receives acceptable rate of return taking into account specific risks of this investment project.

Developed industrial economies that have longer history of formation/drafting legal rules and, therefore, more detailed and diversified domestic legislation, usually prefer license-based system of subsoil use with "tax plus royalty" taxation. For this group of countries, general character of taxation under license-based (concession) system of subsoil use, which does not take into account individual features of certain projects, is compensated by the fact that their legislation considers interaction, rights and obligations of owners and users of subsoil in greater detail. So it provides more transparency for potential investors regarding future possible procedures and actions of the host state in case of different scenarios of future project developments and in case of potential disputes.

License-based investment regime, due to application of unified/generalized tax system (with non-negotiated character of resource rent collection, contrary to PSA), on the one hand, provides faster opportunities for entering into force of subsoil use agreement (benefit for an investor who lives within discounted cash flows (DCF) economic assessment of the project attractiveness/dis-attractiveness) and, on the other hand, is more simple and convenient for tax administration (regular preference of any state for common/standard rules, even if provide less economic efficiency, rather than for individualized mechanisms, even if the latter provide more economic efficiency).

PSA, due to negotiating character of resource rent distribution mechanism aimed at reaching optimal rent-sharing for both parties, implies longer period of its preparation and conclusion. So trade-off in the PSA case for an investor (within the same DCF approach) is to spend more time for costly negotiations with the host state (which influence negatively on investor's DCF) but to prove such sliding scale of profit-oil sharing that will enable the project to maximize its DCF through the whole project life-cycle and to improve monetized resource rent sharing between the parties (which can influence positively on both investor's and host state's DCF).

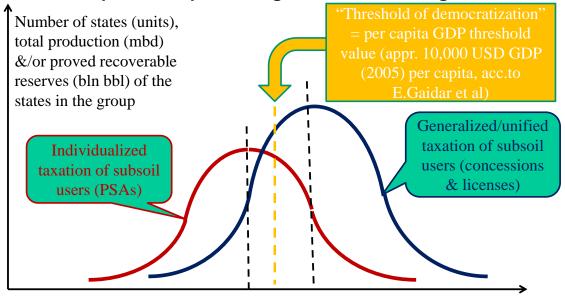
Therefore, if a project has rather simple physical nature and climatic, mining and geological characteristics, it can be more profitable for an investor to commission the project on "standard" (typical) income/profit tax conditions established in the country's legislation within licensing system, and to start generating cash flow earlier, even if due to standardized tax conditions, non-optimized (from investor's point of view) part of its profit from project deployment is derived as income of the host state.

In case of PSA, the investor and the state can reach optimal individual (typical for this very project) distribution of mining rent in the course of long-term negotiations, but in this case cash flow starts to be generated later than in case of standardized license-based system (especially if the latter is not a profit-based, but a revenue-based one). This is why, comparative advantages/disadvantages of either approach should be defined by an investor (if he has such choice, e.g., within the system of multiple investment regimes of subsoil use in the host country) and by the host state in the context of discounted cash flows analyses.

Basic author's hypothesis of this work (see Figure 3) consists in the idea that countries at the earlier stages of formation of their investment legislation, which usually corresponds to lower

level of economic development of such states, and, therefore, to wider range and higher level of non-commercial risks related to project development within such countries, usually choose PSA as mechanism of minimizing investment risks of their subsoil (upstream) projects. PSA regime is more efficient for this group of countries as the tool of enhancing investment attractiveness of the country for potential subsoil users. The latter, in their turn, also prefer PSA regime of work in such countries for the same reasons. Countries with higher level of economic development and elaborated legislation prefer licensing system. According to Barrows Inc. (see below), there are about a dozen of countries worldwide that allow using both main tax systems for investment regimes of subsoil use: generalized taxation within concessionary/licensing regime and individualized taxation within PSA regime.

Figure 3: Basic author's hypothesis of this work – probable distribution of individualized & generalized tax systems of subsoil use worldwide dependent on the level of economic development of producing/resource owning state



(Figure 3: Basic author's hypothesis of this work – probable distribution of individualized &

Level of economic development of producing/resource owning state,

GDP per capita (USD)

generalized tax systems of subsoil use worldwide dependent on the level of economic

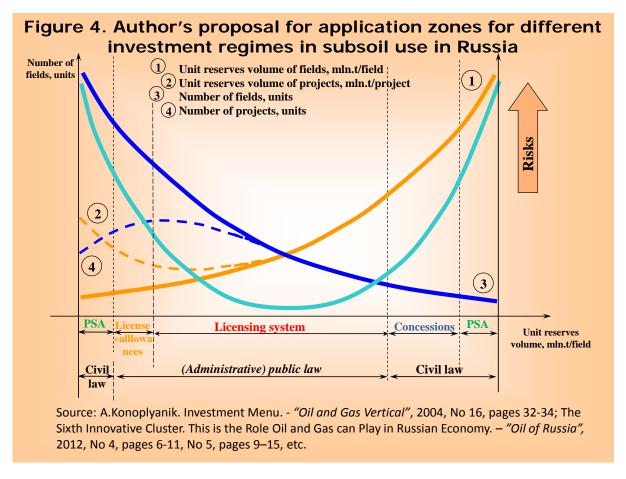
development of producing/resource owning state)

This work presents results of analysis of correlation between preferential implementation of subsoil use tax regime in petroleum industry worldwide and the level of economic development of the corresponding host state (per capita GDP) for 180 countries as of 2003 and 2009. Calculations were based on statistical data of the United Nations (GDP) and Association of International Petroleum Negotiators (AIPN) and Barrows Inc. (tax regimes of subsoil use). Calculation were technically made by my then masters/postgraduate PhD students Maria Belova (2003 analysis) and Elina Abaeva (2009 analysis). Calculations have

shown that peak of applying PSA regime in the countries with commercial oil production refers to the states with per capita GDP of USD 5 thousand in 2003 and USD 11 thousand in 2009, while peak of licensing/concession regime ("tax plus royalty" pattern) was demonstrated by countries with per capita GDP of USD 15 and 17 thousand, respectively. From this point of view, large-scale practical use of PSA regime in Russia (with per capita GDP of approximately USD 8 thousand in 2003 and USD 15 thousand in 2009, according to UN data) as a tool of developing new oil and gas projects (Greenfields) would actually correspond to the stage of economic development Russia currently undergoes.

However, this author does not intend to propose to apply PSAs in Russia ubiquitously, but only where it is preferable for an investor seeking subsoil rights. Most probably, scopes of PSA application will be "peripherals" of the resource range, i.e., as a rule, extremely large and small deposits. This is why the author has been making a stand for the concept of multiple equitable investment regimes of subsoil use in mineral resource industries of Russia<sup>3</sup> (see Figure 4).

<sup>&</sup>lt;sup>3</sup> See A.Konoplyanik. *System approach for attracting foreign investments into Russian energy.* – Dissertation in the form of scientific presentation for Doctor of Economics degree, Moscow, State Academy of Management, 1995, p.82; the same author. "Concession Agreement: Possible Place and Role in Investments Laws of Russia", pages 77 – 92, – in the book: *Oil and Gas, Energy and Law, 2001 – 2002.* Information Edition on Law Matters by Fuel and Energy Sector of Russia (annual). – Moscow, "Nestor Economic Publishers", 2001, 244 pages; the same author. Investment Menu. - "*Oil and Gas Vertical*", 2004, No 16, pages 32-34; the same author. The Sixth Innovative Cluster. This is the Role Oil and Gas Can Play in Russian Economy. – "*Oil of Russia*", 2012, No 4, pages 6-11, No 5, pages 9 – 15; the same author. "Alternative Investment Regimes for Direct Foreign and Domestic Investments in Russian Subsoil". – Harriman Institute Occasional Paper 2013, "*The Harriman Review Occasional Paper Jan 2013*", vol. 19, no. 1 (2013), (57+32 pp.); the same author. "Multiple Investment Regimes for Russian Subsoil Resources: Work in Progress or Utopia?" (Chapter 2, pp.29-60). – in: Foreign Investment in the Energy Sector: Balancing Private and Public Interests. Edited by Eric De Brabandere, *Leiden University*, and Tarcisio Gazzini, *VU University Amsterdam*. – Brill-Nijhoff, Nijhoff International Investment Law Series, June 2014, xxvi+286 pp.; etc.



(Figure 4. Author's proposal for application zones for different investment regimes in subsoil use in Russia)

## 2. Pre-history of this study: From Support to Opposition to PSA in Post-Soviet Russia

In the beginning of 2000-ies, Russian political establishment began to demonstrate growing criticism against such mechanism (investment regime) of subsoil use as production-sharing agreements (PSAs)<sup>4</sup>. This reverse wave replaced steadily growing interest in PSAs that was

<sup>&</sup>lt;sup>4</sup> As for PSA mechanism, history of its legalization in Russia, see e.g.: A. Konoplyanik, M. Subbotin, Yu. Shvemberger. *Law "Of Product Sharing Agreements": History, Documents and Comments.* - Special issue of "Neft, Gaz i Pravo" Journal, 1996, January / February, No 1(7), 104 pages; A. Konoplyanik, M. Subbotin. *State and Investor: Excellence of Coming to an Agreement (Concessionary Legislation in Russia).* - Moscow (EPICentr) - Kharkov (Folio), 1996. Part 1: Theory and Practice of Concluding Concessionary and other Agreements, 125 pages; Part 2: Draft Laws on Concessions and Production-Sharing: 1994 – 1995, 158 pages; A. Konoplyanik, V. Subbotin. *Controversy about sharing (Discussion about the Law "On Production-Sharing Agreements").* - M.: VNIIOENG, 1996, 222 pages; A. Konoplyanik. *Reforms in Russian Oil Industry (Taxes, PSAs, Concessions) and their Effects for Investors.* – "Olita", 2002, 217 pages; A. Mikhailov, M. Subbotin. "*Yabloko" and PSA.* – Moscow (EPICentr); Integral-Inform, 2003; A. Konoplyanik. *Russia in Evolving Eurasian Energy Space: Competitive Ability Issues.* – "Nestor Economic Publishers", 2004, 655 pages; etc. See also broad spectrum of this author's articles on this issue at www.konoplyanik.ru.

observed since early- till end-1990-ies. The reasons of both explosion of interest in PSAs and criticism of and struggle against PSAs are generally well-known; they were broadly published and presented, inter alia, by this author<sup>5</sup>.

As Decree of the President of the Russian Federation "Issues of Production-Sharing Agreements for Subsoil Use" was adopted in December 1993<sup>6</sup> and the Law "On Production-Sharing Agreements" was adopted and entered into force in January 1996<sup>7</sup>, Russia saw strong explosion of interest both from Russian and foreign oil companies in PSA as in the tool intended to ensure balance of interests of both the host state, which is the subsurface resource owner, and an investor, which is a subsoil user, when generating and distributing mining rent within investment projects in the upstream. Additional growth of interest in PSA as investment mechanism for subsoil use was shown by oil companies and the state at the end of 1990-ies. In 1997 – 1998, oil prices on the global market dropped in result of Asian financial crisis, and the tax system in Russian oil production being built on gross revenue-based taxation with multiplicity of taxes and levies (at some point, their total number has reached 47 different government takes at all levels) led to the situation, when for Russian oil companies the sum total of tax burden (total government takes) and costs of production, on the basis of one unit of produced oil, has exceeded oil price level, thus leaving the companies

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<sup>&</sup>lt;sup>5</sup> See e.g.: A. Konoplyanik, M. Subbotin. *Controversy about sharing (Discussion about the Law "On Production-*Sharing Agreements"). - M.: VNIIOENG, 1996, 222 pages; A. Konoplyanik. Reforms in Russian Oil Industry (Taxes, PSAs, Concessions) and their Effects for Investors. - Moscow: "Olita", 2002, 217 pages; PSA Dispute (edited by A.A. Arbatov and A. A. Konoplyanik, complied by M.A. Belova). - Moscow, "Olita", 2003, 228 pages; A. Konoplyanik. Taxation of Russian oil production: Mineral Resource Production Tax (MRPT) against PSA. (Why the State choose less effective tax regime and refuses from Mineral resource rent?), pages 121-144 – in the book: "Tax consulting in Uzbekistan: problems of formation and development prospects. (Series: Law and Taxes), Tashkent, "Consauditinform", 2003; A. Konoplyanik. Russia in Evolving Eurasian Energy Space: Competitive Ability Issues. - Moscow: "Nestor Economic Publishers", 2004, 655 pages. See also the following articles of this author: Policy of Russian oil companies regarding PSA. - "Oil of Russia", September 2002, N9, pages 32-34; Debate on PSA: to take away a competitor. - "Vedomosti", 17 March 2003, page A4; Struggle against PSA: who and why needs it? Some issues of economic theory and effects of their practical implementation. - "Oil and Capital", June, 2003, No 6, pages 12 - 18; PSA debate not over yet. -"Petroleum Economist", July 2003, page 12; A struggle for mineral rent. - "Petroleum Economist", August 2003, pages 23 - 24; PSA debate: Getting rid of rival. - "Oil, Gas & Energy Law Intelligence" (OGEL), Vol.1 - issue 3, July 2003; President's Error. Who is Really Interested in Russia in Abolishing PSA Regime? - "Oil of Russia", September 2003, No 9, page 62 - 67; October 2003, No 10, page 47 - 49; 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, etc. (all available from www.konoplyanik.ru).

<sup>&</sup>lt;sup>6</sup> A. Konoplyanik. Unwrapping Yeltsin's Christmas Gift. - "Russian Petroleum Investor", 1994, № 3, pages 69-71; the same author. Production Sharing: Christmas Gift to Investors. What will Follow? - "Oil Industry", 1994, No 3, pages 10 – 15; etc.

<sup>&</sup>lt;sup>7</sup> A. Konoplyanik. The Law «On Production-Sharing Agreements" will help to liquidate investment passiveness. – "Financial News", 26 January 1996, N8 (242), page II; the same author. The Law on production-sharing signed and entered into force. First results. – "Economics and management of oil and gas industry", April 1996, N4, pages 2-7; the same author. The Russian Production Sharing Agreement Law. - "Oil & Gas Law and Taxation Review", vol. 14, Issue 7, July 1996, pages 314-315; etc.

with the negative profit in result of inflexibility, universal/generalized and revenue-based character of taxation<sup>8</sup>.

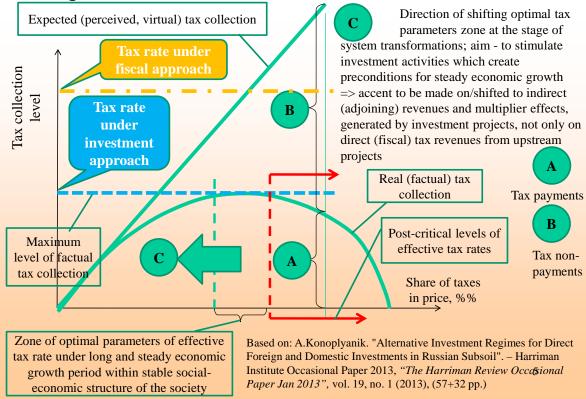
When the next wave of oil price growth started at the turn of the century, the state began to lose interest in mechanisms of mining rent allocation within investment regimes of subsoil use based on civil law instruments which provide for reaching balance of interests of the parties in the course of usually lengthy negotiations between state and investor on individual project terms.

The financial segment of the Government has never really liked PSA regime since PSA, first of all, is an investment regime, it is long-term-aimed by definition and thus is not aimed at maximization of taxes at any price today or in the short-term, as fiscal approach does (even by destroying economics of investment project that generates the tax flows). PSA is aimed at reaching the balance between the state and an investor regarding resource rent generation and allocation by maximization of generation and optimization of allocation of mineral resource rent from the project during the whole project life, i.e. in the long-term.

Fiscal approach is generally aimed at maximization of government take in the short-term, while investment approach is aimed at expansion of tax base in the long-term and thus can lead to a lower, compared to fiscal approach, level of government take in the price of the good produced (downgrading it from maximum to optimum level, and switching from revenue-based to profit-based taxation, if one will bear in mind effect of "Laffer's curve" – see Figure 5). So fiscal authorities usually blamed PSA on the perception as if it leads to underutilization/shortage of rent (taxes) and lack of budget income (missed/lost budget revenues).

<sup>&</sup>lt;sup>8</sup> See: Ministry of Fuel and Energy of the Russian Federation. *Main Conceptual Provisions of Developing Oil and Gas Complex of Russia. – "Neftegazovaya Vertical"*, 2000, N1 (special issue), 113 pages.

Figure 5. Dynamics of expected and factual tax collection with the growth of effective tax rate (effect of Laffer's curve)



(Figure 5: Dynamics of expected and factual tax collection with the growth of effective tax rate (effect of Laffer's curve))

Besides, Russian public bodies barely had enough negotiators, at least at that time (if any at all), who knew thoroughly (or at least somewhat professionally) specific features of this investment regime and rent generation principles in mineral resource industries, and who were able to process all projects applied for transfer into PSA regime at least in oil industry. Thus, by 1997, in a survey of oil/gas companies, provided by the State Duma Committee on Natural Resources, a number of applications submitted by companies aiming at transfer of their oil/gas production projects into PSA regime reached the figure of 250 projects (both new projects as well as applications for transfer into PSA regime for a big amount of projects that have been developed already under licensing regime).

In these circumstances it would have been possible to attract experienced foreign negotiators to negotiate in forthcoming PSAs on the Russian Government's side (as was done, for instance, in the case of "Sakhalin-2" PSA project in early 1990-ies when US legal firm and French investment bank were selected in result of open bidding procedure by the Russian Government to serve as legal and financial adviser to the state in negotiations on this PSA project). But after the time of Egor Gaidar's Government the practice of engaging private and ever more foreign legal and financial consultants in negotiations on investment projects did not catch on in Russia. And when German Gref has head up the Ministry of Economics, they just started accusing PSA regime of as if corruption character.

During this period, *Russian state* (public authorities) again shifted to preferring simple fiscal-oriented tools of mining rent recovery (inter alia, simple in terms of tax administration). It proceeded from the assumption that high oil prices are a sufficient compensation to investors – potential subsoil users for lack of legal stability and favourable tax treatment in Russian investment regime of subsoil use. In the battle "simplicity vs efficiency" of tax regime, the first approach has won within Russian state authorities.

As a result, bets have been placed on shaping, in the context of licensing system of subsoil use, of the current oil industry taxation system that consists of two main components: (a) mineral resource production tax (MRPT) with flat scale of per-ton rate, and (b) export customs duties<sup>9</sup>. But eventually this tax treatment was constructed in a manner than excluded "exposure fee" including that for non-commercial risks of unpredictable decisions of state bodies, while stabilization clauses in the context of licensing regime of subsoil use in Russia are virtually missing (since their durations are insufficient within the investment cycle of upstream projects) or can be barely implemented in practice.

As a result, current tax treatment in the context of licensing system of subsoil use in Russia ensures "cut-off price" of about USD 25 - 27 per barrel for all projects practically irrespective of oil price and production costs level. That is why it perfectly suits for satisfying fiscal interests of the state (recovers all price rent, i.e. revenue in excess of the specified level of "cut-off price", and provides for simple tax administration), but does not create sufficient motivation for potential investors using subsurface resources to make large-scale investments in exploration and development of new production fields. That is why today Russia mostly continues exploring and developing industry resource potential that was proved as early as during the Soviet period.

In the beginning of 2000-ies, when the oil prices began to grow, *non-state Russian companies* considered PSA, on the one hand, as the tool that would make companies, which in the course of loans-for-shares auctions got the youngest and the most high-rate fields (YUKOS, Sibneft), pay more taxes than under flat-rate MRPT<sup>10</sup>. On the other hand, with two investment regimes of subsoil use in Russia (investment-prohibitive licensing regime and investment-attractive PSA regime), PSA functioned as a barrier hindering increase of capitalization of these companies for further sales of large holdings of shares at higher price to potential foreign investors. PSA de facto prevented the owners of such Russian companies to resale at higher premium (at higher price) big packages of their companies, that they have earlier bought quite cheaply during loans-for-shares auctions.

<sup>&</sup>lt;sup>9</sup> Critical analysis of this tax system is presented, e.g., in: A. Konoplyanik. *Reforms in Russian Oil Industry (Taxes, PSAs, Concessions) and their Effects for Investors.* – "Olita", 2002, 217 pages. Detailed description of its evolution can be found in: E. Dyachkova. Economic Regulation of Oil and Gas Industry in Post-Soviet Russia." – Moscow, OOO "Geoinformmark", 2011, 238 pages.

<sup>&</sup>lt;sup>10</sup> A. Konoplyanik. *Reforms in Russian Oil Industry (Taxes, PSAs, Concessions) and their Effects for Investors.* – Moscow: "Olita", 2002, 217 pages; *the same author*. Struggle against PSA: who and why needs it? Some issues of economic theory and effects of their practical implementation. – "Oil and Capital", June, 2003, No 6, pages 12 – 18.

PSA projects were more preferable aim for direct investments for *foreign companies* that would like to enter the Russian market directly through project financing as compared with purchase of shares of Russian companies. "What did foreign companies tell, when asked about perspectives of entering the Russian market in 1990-ies? They told that they would invest funds only on production-sharing conditions that would guarantee investors predicable tax treatment throughout the project lifecycle" That is why it was necessary for new Russian oil oligarchs (especially those who came from financial markets and viewed their petroleum assets first of all as financial, not production asset) to "eliminate the competitor", i.e., to abolish alternative way for foreign entities to invest in Russian oil industry except as through purchase of shares of Russian oil companies. 12

# 3. PSA with "Anti-State Flavour" in Russia Since Early 2000-ies

"In the first half of 2000-ies, PSA subject acquired some "ant-state" flavour due to efforts of private vertically integrated oil companies enjoying crescendo of their influence..." The campaign of severe criticism (and sometimes even defamation) of PSA mechanism launched at that time relied on multiple arguments, and, in particular, on the commonly used assertion that PSA was allegedly the destiny of underdeveloped and non-democratic countries, all kinds of monarchies, inheritance of the colonial epoch, and Russia oughtn't ... (and so on). This argument, however, was spoken out not for the first time. For example, one can remember that Prof. Alexander Perchik, a future coauthor of Sergey Bogdanchikov (the then President of Rosneft Oil Company), who would co-author praiseful book about PSA in 1999, in 1992, at the meeting of the State Expert Examination Commission on "Sakhalin-2" PSA project, wrote its "Special Opinion" against PSAs as alleged attributes of poorly developed countries.

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<sup>&</sup>lt;sup>11</sup> S.Savushkin. Editorial. – "Oil and Capital" No 4 (167), April 2010, page 1.

<sup>&</sup>lt;sup>12</sup> See A. Konoplyanik. PSA Dispute: Eliminate the Competitor. – "Vedomosti", March 17, 2003, page A4; the same author. Struggle against PSA: who and why needs it? Some issues of economic theory and effects of their practical implementation. – "Oil and Capital", June, 2003, No 6, pages 12 – 18; the same author. President's Error. Who is Really Interested in Russia in Abolishing PSA Regime? – "Oil of Russia", September 2003, No 9, page 62 – 67; October 2003, No 10, page 47 – 49.

<sup>&</sup>lt;sup>13</sup> S.Savushkin. Editorial. – "Oil and Capital", No 4 (167), April 2010, page 1.

<sup>&</sup>lt;sup>14</sup> See e.g.: M. Subbotin. Winter 2003. PSA. Black PR Era. – "Global Energy Policy", 2003, No 2.

<sup>&</sup>lt;sup>15</sup> As an illustrative example, one can remember exhibition "Painters against PSA" created in the artistic style and best traditions of "Krokodil" Magazine and KUKRYNIKS of the Cold War era organized in State Duma building and financed by Yukos.

<sup>&</sup>lt;sup>16</sup> S. Bogdanchikov, A.Perchik. "Production-Sharing Agreement: Theory, Practice, Perspectives. Law, Economics". – "Neft I Gaz", Moscow, 1999.

In due time, a lot of PSA myths and misapprehensions were dispelled in different publications and speeches of active PSA supporters Mikhail Subbotin<sup>17</sup>, Alexey Melnikov<sup>18</sup>, Alexey Mikhailov<sup>19</sup>, your humble narrator<sup>20</sup> and other specialists.<sup>21</sup>

To my deep regret, opinions that PSA is the destiny of underdeveloped and non-democratic countries was (and, as far as I can see, is still) shared by some of my esteemed former Gaidar's government colleagues. For example, Andrey Illarionov holding the position of Advisor of the President of the Russian Federation for Economic Issues, has once noted that he doesn't know developed economies, where PSA mechanism is applied, and, in his mind, PSA is acceptable only for underdeveloped countries. Vladimir Mau (former Economic Adviser to Egor Gaidar in his Government, and now Rector of the Academy of National Economy and State Services) also considers PSA to be an attribute of monarchies and authoritarian regimes: "As for PSAs, they are good for authoritarian government systems. In democratic environment, it is practically impossible to substantiate conditions of such agreements in an unbiased manner; that is why their adoption will inevitably result in conflicts between different state departments and will set breeding ground for corruption". 22

This argument against PSA is used by this (and some other) undoubtedly highly qualified economists, so to say, from the "image" point of view, as from their logic it follows that applying PSAs in Russia allegedly moves Russia to an inappropriate group of countries either in terms of level of economic development, or in terms of system of state. However, refusal from implementing the institutes that are perceived by some specialists as those that are not (must not be) attributes of highly developed (high income) democracy does not in itself mean that such country gets additional features of or becomes highly developed (high income) democracy.

Opinion about PSA as of "colonial/monarchical/authoritarian" attribute was rather deeply rooted among highly qualified Gaidar's-team economists, in spite of the fact that it was Egor Gaidar himself, who supported, approved the known (I would even say "famous") Decree No 2285 dated December 24, 1993 "Issues of Production-Sharing Agreements for Subsoil Use" that started legalization of PSA investment regime in Russia, and who personally submitted it to be signed by Boris Yeltsin<sup>23</sup>. While during the period of struggle for adopting the law "On

<sup>&</sup>lt;sup>17</sup> See <u>www.concessions.ru</u>, sources in footnote 6, and for example: A. Mikhailov. M. Subbotin. "Yabloko" and PSA. - EPICentr, Integralinform, 2003.

<sup>&</sup>lt;sup>18</sup> See <u>www.yabloko.ru</u>.

<sup>&</sup>lt;sup>19</sup> See <u>www.yabloko.ru</u>, and, for example: A. Mikhailov. M. Subbotin. "Yabloko" and PSA. – EPICentr, Integralinform, 2003.

<sup>&</sup>lt;sup>20</sup> See <u>www.konoplyanik.ru</u>.

<sup>&</sup>lt;sup>21</sup> See, for example: N. Smirnov. PSA Myths. –"Neft, Gaz i Pravo", 2002, No 5.

<sup>&</sup>lt;sup>22</sup> From comments of V. Mau to Rusenergy, 21.05.2001.

<sup>&</sup>lt;sup>23</sup> See A. Konoplyanik. Production Sharing: Christmas Gift to Investors. What will Follow? - "Oil Industry", 1994, No 3, pages 10 - 15; the same author. Concept of Legalizing Production-Sharing Agreements in Russia: Key Aspects. –"Oil Industry", 1994, No 11 - 12; pages 6 - 15.

PSAs" that was observed in the State Duma in 1994 – 1995, "Choice of Russia" parliamentary party headed by Egor Gaidar actively supported its adoption in the version that had been developed by a group of drafters headed by your humble narrator and submitted on behalf of "Yabloko" parliamentary party by its deputies Alexey Mikhailov and Alexey Melnikov, and not in the same-name watered-down "governmental" draft, in which production-sharing was suggested not instead of (see Figure 2), but in addition to existing (and then mostly revenue-based) taxes and levies within the framework of corresponding subsoil use investment projects<sup>24</sup>.

Repeated objections against PSA built on its mythologizing, lack of knowledge on the matter, dogmatism, performing "political" or "business order" ensuing in black PR against PSA etc., "non-economic" arguments of agenda-driven "PSA fighters" do not deserve additional consideration, since they were paid a lot of attention in due time<sup>25</sup>. However objections articulated by respectful and recognized economists, whose opinions are listened to by authorities and society, cannot be left without comments and counter-arguments.

The author, who had the honour to be the head of the group of drafters of Russian PSA Legislation, had to be actively involved in PSA debates. One should admit with regret that we (PSA supporters) have lost that stage of fight for PSA then. In 2001, Chapter 26 of the Tax Code was adopted, with the law that put into effect this Chapter and at the same time which actually closed application of PSA in the country.

Since one of the ideologists and facilitators of fight against PSA in the beginning of 2000-ies was Mikhail Khodorkovsky, then President of YUKOS <sup>26</sup>, who was arrested in autumn of 2003 and since then has been staying in prison, it would not be ethical, from my view, to engage in controversy with the person that had just been arrested and was on the trial at that moment despite the fact that before his arrest he was my major "opponent" (in substance) – or the factual head of the whole camp of the opponents - regarding the future of PSA investment regime in Russia. This is why at that time it was (a) late to provide counterarguments in defense of PSA from practical point of view (as it seemed to many people at that time, the line under PSA history in Russia had been drawn) and (b) unethical from universal human standpoint, as it could have been perceived as an attempt to aggravate the situation of the person under investigation, and to add another accusation to the multitude that was already charged.

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A. Konoplyanik, M. Subbotin. Legislative Initiative "on Behalf" of the President. - "Financial News", February 21, 1995, No 12 (141), page IV; the same authors. "Natural" Committees Fight with National Economy. - "Financial News", April 27, 1995, No 30 (159), page IV.

<sup>&</sup>lt;sup>25</sup> See, inter alia, bibliography in footnotes above.

<sup>&</sup>lt;sup>26</sup> See e.g.: A. Nedogonov. Yukos vs. PSA: Reasons of Mikhail Khodorkovsky Fighting against Production-Sharing Regime. - Rusenergy.com, 2.02.2003

That is why the publication of research results was delayed for several years (today the new wave of debate on application of PSA in Russia began to raise, especially in relation to intended Arctic offshore development, and Mr. Khodarkovsky is not in jail anymore), and the research itself took form of comparative analysis, both in term of inter-state and within time-frame, and was undertaken by "two generations" of my masters/port-graduate PhD students.

# 4. Economic Growth, Evolution of Energy Markets and Choosing the Model of Subsoil Use: Theoretical Aspects

While developing concepts (theory) of evolution of international energy markets and mechanisms of investment protection / motivation in energy, I have already stated that in my opinion PSAs (as well as concessions) are enclaves of stability in countries with lack of legal framework or in transitional economies, that is why in such environment civil law mechanisms ensure better protection of investors against uncertainties, first of all – against non-commercial risks<sup>27</sup>. From my point of view, it is not of actual importance whether the country is a monarchy, autarchy, young democracy or is in transition from one type of state structure to another. What is important is whether this country has shaped comprehensive, diversified institutional environment that makes effects of actions undertaken by the state that owns subsurface resources predictable for a subsoil user investor. It is important, whether this country has in place the efficient court system put into practice to support neutral (unbiased) approach to resolving possible disputes between the above parties to projects investing in use of subsurface resources and having the highest investment risks as compared to investment projects in other industries.

It is clear that from this point of view we can observe great objective similarity between underdeveloped counties and economies in transition. Legislation in the first group of states is absent in principle as unnecessary phenomenon, for they have not yet reached the economic development threshold required to trigger democratization. The latter group of states have underwent abrupt wreckage of economic and legal model caused by change of the previously selected course of social development, and the old previously existing model (with

<sup>&</sup>lt;sup>27</sup> See e.g.: A. Konoplyanik. *Russia in Evolving Eurasian Energy Space: Competitive Ability Issues.* – Moscow: "Nestor Economic Publishers", 2004, 655 pages; the same author. Energy Security and the Development of International Energy Markets (Chapter 3, pages 47 – 84) – in the book: *Energy security: Managing Risk in a Dynamic Legal and Regulatory Environment.* /Ed. by B. Barton, C. Redgwell, A. Ronne, D.N. Zillman. – International Bar Association/Oxford University Press, 2004, 490 pp.; the same author. "Multilateral and bilateral energy investment treaties: Do we need a global solution? The Energy Charter Treaty as an objective result of the evolution of international energy markets and instruments of investment protection and stimulation" (Chapter 4, pp. 79-123). – in: Research Handbooks in International Law. *Research Handbook on International Energy Law*. Edited by Kim Talus. – Edward Elgar: Cheltenham, UK, & Northampton, MA, USA, 2014, 679 pp.; the same author. "International mechanisms of investment protection in energy and expanded/updated package of the ECT and related instruments". – "*Neft, Gaz I Pravo*", 2014, N4, p.51-63; and other works.

its legal institutions and regulations or without them whatsoever) is replaced with a new one, which often requires brand new legal institutes and regulations, and for which old institutes and regulations turn out to be completely unfit. This means that at the initial stage of development of any transitional economy legal vacuum is formed that is gradually filled in with new legal content. And this happens irrespective of the level of economic development such transitional economy has reached by the time of turning point to transition. It usually takes dozens of years to shape fully-fledged institutional environment. That is why I see nothing disgraceful if, during long-term transitional period, the host country, which is a transitional economy with higher income than underdeveloped countries, continues applying project-oriented investment mechanisms that ensure required level of mitigating investment risks, and first of all non-commercial ones. Even if such mechanisms are employed in underdeveloped emerging economies as well...

That is, as a general rule, PSA and/or concessions is project-oriented or customized investment regime of subsoil use in the countries, where there is no sufficient level of development of investment legislation (and legislation in general) that provides for adequate remedies / incentive measures of investment activities.

On the contrary, licensing regime of subsoil use implies universal country-wide tools that are the same for all different fields, in particular, tax treatment, which is the same for all projects that allows, however, individual temporary exemptions usually issued by authorized public bodies of the host country on a unilateral basis, in a handy manner. To efficiently apply licensing regime, the host (resource owning) country should have well-developed domestic institutional (legal & economic) environment, which takes many years to create. This is why PSA can be considered as the first stage of evolution of investment protecting / motivating mechanisms in energy which are being developed simultaneously and in connection with evolution of international energy markets<sup>28</sup>.

Growth of per capita GDP increases the need in legal economy and democratic institutions to protect property rights. It is clear that in the first turn it is necessary for the extending class of small and medium-sized private owners, that is, for emerging "middle class" that can rely only on universal provisions of law, unlike representatives of oligarchy that can find individual solutions of their problems. But since a certain moment, when respective business empires are mostly formed, and property redistribution is generally complete, it becomes

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<sup>&</sup>lt;sup>28</sup> See: A. Konoplyanik. *Russia in Evolving Eurasian Energy Space: Competitive Ability Issues.* – Moscow: "Nestor Economic Publishers", 2004, 655 pages; the same author. Energy Security and the Development of International Energy Markets (Chapter 3, pages 47 – 84) – in the book: *Energy security: Managing Risk in a Dynamic Legal and Regulatory Environment.* /Ed. by B. Barton, C. Redgwell, A. Ronne, D.N. Zillman. – International Bar Association/Oxford University Press, 2004, 490 pp.; the same author. Energy Security: The Role of Business, Government, International Organizations and the International Legal framework. – "International Energy Law & Taxation Review", 2007, N 6, p. 85 – 93; the same author. "International mechanisms of investment protection in energy and expanded/updated package of the ECT and related instruments". – "Neft, Gaz I Pravo", 2014, N4, p.51-63.

more profitable for large businesses to run operations in compliance with the legislation, and not through legislative gaps using lack of laws and/or "grey areas" in certain issues.

As for foreign investors, legal framework is first of all also necessary for small and medium-sized companies that cannot directly contact top leadership of a host country. As a matter of fact they can, but first, their request will hardly reach foreign host country leaders, and second, their voice is hardly ever heard. This is unlike large companies, whose turnovers can be compared or even exceed GDPs of certain states. It is their voice that will be heard in case they contact leaders of any country. That is why whether the host country has shaped level playing field in domestic legislation (legal environment of equal treatment) is not as important for large businesses as for small and medium-sized companies. But all companies need stable regulatory conditions of investment projects, especially in industries, where such projects have higher compared to other industries capital intensity and implementation terms. Subsoil use investment projects are just within this category.

Predictability of investment project rules can be achieved in different ways, for example, by civil law and/or public law instruments<sup>29</sup>. Developed market economies with democratic state structure can have in place licensing regime of subsoil use built on provisions of public law, in which the state is always "higher" than the investor (and thus investor is always subordinate to the host state). But these provisions have been developed through the lasting evolution of legal systems. Therefore, licensing (public law) system of subsoil use, which is more rigid in relation to an investor, unilaterally establishes the system of taxes, levies and other payments to the benefit of the state, and does not imply any negotiating character of defining mechanism of mining rent collection/distribution, is compensated by its greater differentiation and transparency, that is predictability, which gives an investor an opportunity to adequately assess risks of investment project in subsoil use in advance of its implementation and for the entire period of project life-cycle.

In underdeveloped countries and transitional economies, "supremacy of law" is not yet a prevailing principle. Most of business is often run through legislative gaps, in spite of the law, and not due to it. In case of inefficient and prohibitive legislation, risks of evasion of law are less than risks of complying with the legislation threatening with bankruptcy (see Figure 6). Such economies need enclaves of stability, the so-called financial separation of the project, project ring fencing, for without them current legislation cannot ensure adequate compensators of such risks. This is why PSAs and concessions are mechanism of investor protection that are adequate to the level of development of energy markets and institutional systems of host countries that are not referred to developed market economies with diversified (well developed) democratic state structure, where "supremacy of law" has been established and is efficiently used in practice, and not merely declared.

<sup>&</sup>lt;sup>29</sup> See, for instance, sources in footnote 4.

**Project** To refuse from the project To start the project under existing taxation To pay taxes and Tax optimization, incl. To fight for individual tax became bankrupt escaping from taxes concessions Unwillingness to Illegal Legal Corruption address investor's problems Loss of Loss of tax Way to Increase of investor earnings success tax burden Source: A.Konoplyanik. System approach for attracting foreign investments into Russian energy. - Dissertation in the form of

Figure 6. Possible options of investor's behaviour within restrictive tax environment

(Figure 6: Possible options of investor's behaviour within restrictive tax environment)

scientific presentation for Doctor of Economics degree, Moscow, State Academy of Management, 1995, p.82.

Of course, specific parameters of concessions and PSAs change with the course of time<sup>30</sup>, reflecting, in each specific moment, the balance of interests that can be ensured (reached in the course of negotiations) by the parties of respective agreements – the receiving state that owns subsurface resources, and subsoil user investor. This is why what important is not the mere fact of concession or PSA, but parameters of a specific agreement. The entire history of development of petroleum agreements starting with the first actually implemented D'Arcy concession (1901) is the history of struggle of two negotiating parties for a new balance of interests inside a certain new agreement that should reflect new realities shaping in international economic and energy relations and affecting the economics of a specific project.

<sup>&</sup>lt;sup>30</sup> See: A. Konoplyanik. Main Types and Conditions of Agreements Existing in Oil Industry of Capitalistic States between Transnational Corporations and Receiving Countries. - "Bulletin of Foreign Commercial Information" (BIKI), 1989, Appendix # 10, pages 3 – 23; D. Jonstone. "International Oil Business. Tax Systems and PSAs" – Moscow, 2000; D. Jonstone. "Analysis of Economy of Geologic Exploration, Risks and Agreements in International Oil and Gas Industry". – Moscow, 2005; C.Duval, H.Le Leuch, A.Pertuzio, J.L.Weaver. International Petroleum Exploration and Exploitation Agreements: Legal, Economic, and Policy Aspects (second edition), Barrows Co, New York, NY, 2009; and other numerous publications of G.Barrows and Barrows Inc. and AIPN on these issues.

## 5. Problem Statement and Two Ways to Solve it

So, the key question is: whether Russia is a highly developed country, and allegedly that is why PSA is not acceptable for this country (alleged "wrong" investment mechanism of subsoil use, for it is not adequate to the level of economic development of the country), or if PSA as investment mechanism in subsoil use has outlived its usefulness because Russia has moved to the higher level of economic development? Or, if PSA is an adequate mechanism (investment regime in subsoil use) for current level of economic development and stage of shaping institutional environment and investment legislation of the Russian Federation, and the only issue is that it does not match ungrounded expectations of some specialists (though respected, and highly qualified in their area) about the place Russia takes on economic world map? In other words, the issue consists in perception adequacy. Do we need a distorted picture? Still, we need correct diagnosis to make right decisions about how the country will develop further...

Two ways of searching for an answer to the raised question are possible.

The first way: to define current threshold of per capita GDP for highly developed democratic countries Russia is supposed to refer to according to the opinion of anti-PSA fighters appealing to its "colonial" and "anti-democratic" essence, and to see, if our country is among such states. However, I can already predict obvious difficulties in formalized definition of such threshold for both of these categories: what country is to be referred to "highly developed" and "democratic" categories, and how is this threshold calculated – on the lowest group value, average weighted or otherwise. According to current exchange rates or purchasing power parity (PPP)? There are also other stumbling blocks.

The second way: to analyze distribution of regimes of subsoil use in the states worldwide depending on the level of their economic development, i.e., depending on the level of their per capita GDP, and to see what area Russia tends to belong to.

### 6. Economic Development and Democratization

When some time ago I was re-reading Egor Gaidar's "Anomalies of Economic Growth"<sup>31</sup>, I was especially attracted by the section in the book's first chapter "Today's Economic Growth", where the author described and summed up regularities of evolving from agricultural to industrial society identified by other researchers, in particular connection of standards of living and democratization process. On pages 25–27 of his book, E. Gaidar provides data from research of Chenery and Syrquin,<sup>32</sup> according to which highly developed

<sup>&</sup>lt;sup>31</sup> E.Gaidar. Anomalies of Economic Growth. – "Evrasia", 1997, 215 pages.

<sup>&</sup>lt;sup>32</sup> Chenery H., Syrquin M. Patterns of Development. 1950-1970. - London, 1975.

states include countries with per capita GDP over USD 1000 per year in 1964 prices, which is equivalent to USD 4500 per year in 1994 prices.

Further, Gaidar writes that "there exists interconnection between economic and social political development. An illustrative example is relation of standard of living and democratization process. It was noticed by M. Lipset as early as in 1960.<sup>33</sup> The interrelations it has discovered were used by S. Huntington<sup>34</sup> in his analysis of democratization processes of 1970 – 1980-ies". Gaidar quotes quite an illustrative table made up by Huntington under the title "Democratization and Economic Development" (see table 1)<sup>35</sup>. According to this table, high-income states are countries with per capita GDP over USD 3000 per person in 1987 prices or over USD 7150 per person in 1994 prices.<sup>36</sup>

Table 1

Democratization and Economic Development (according to Huntington)\*\*\*

1976 GDP per	1976 GDP per Democratic States		Non-Democratic	Total
capita *	in 1974	States, 1974 –	States	
		1989 **		
Up to 250	1	2	31	34
250 – 1000	3	11	27	41
1000 – 3000	5	16	5	26
Over 3000	18	2	3	23
Total	27	31	66	124

(\*) The group of up to USD 250 per person in 1987 prices matches the group of USD 600 per person in 1994 prices. Further, respectively: up to USD 1000 per person = up to USD 2300 per person, up to USD 3000 per person = up to USD 7150 per person, over USD 3000 per person = over USD 7150 per person.

(\*\*) Democratizing states are the countries that shifted to democracy in the period between 1974 and 1989.

(\*\*\*) Huntington S. Ibid. P.62

Quoted by: E. Gaidar. Anomalies of Economic Growth, page 29

(Table 1. Democratization and Economic Development (according to Huntington))

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<sup>&</sup>lt;sup>33</sup> Lipset M. Political Man: Social Basis of Politics. - New York, 1960.

<sup>&</sup>lt;sup>34</sup> Huntington S. The Third Wave: Democratization in the Late Twentieth Century. - London, 1991.

<sup>35</sup> E. Gaidar. Ib

<sup>&</sup>lt;sup>36</sup> Unfortunately, it remains unclear, what rate (current exchange rate or purchasing power parity (PPP)) was used by Huntington to calculate levels of per capita GDP.

"Discovered regularities are too stable to be of accidental character", – comments Gaidar providing similar data of the World Bank. "Among the countries referred to high-income category by the World Bank in the 1980-ies – beginning of the 1990-ies, 20 out of 24 were democratic states (except for three oil producing states and Singapore). Out of 42 poorest countries, only two had considerable democracy experience – India and Sri Lanka. The group of medium-income countries includes 23 democratic states, 25 non-democratic regimes and 5 countries that can be referred to forms of transition from non-democratic regime to democracy. Thus, – Gaidar concludes, – area of medium-income states reflects, as a rule, the level of development, at which transition from non-democratic regime to democracy takes place" again referring to Huntington's table (see table 1).

It follows from the research, Gaidar quotes in his work, that this threshold corresponds to the per capita GDP of approximately USD 10,000 per person (in 2005 prices) <sup>38</sup>.

In the more recent research managed by Charles Robertson of Renaissance Capital investment bank<sup>39</sup> based on experience of 150 countries for 60 years, the connection has been established "between the level of income per capita and status of the state structure – from "unshaken" autocracy up to "immortal" democracy<sup>40</sup>.

The report defines threshold values of per capita income (calculated in 2005 prices using PPP) and associated political regimes. According to the authors, high-income (rich) countries include states with per capita GDP of USD 10,000 per person and more. This level approximately corresponds to that of GDP (recalculated in 2005 prices) of high-income democratic states in research specified in the above-quoted Gaidar's "Anomalies of Economic Growth". In it, level of their high development and democratic character was assessed as of 1950-ies – 1970-ies (Chenery and Syrquin), 1976 (Huntington) and 1980-ies/beginning of 1990-ies (the World Bank), respectively. Specialists of Renaissance Capital assessed it for the period of 1950 – 2009. From which it follows that this level may conditionally be considered as invariable in time<sup>41</sup>.

In the report of Renaissance Capital it is concluded that none of the democratic countries that have reached this level had any throwback; in this report such democracy is termed "immortal". The specification, which is most important for Russia, which per capita GDP was assessed by the authors at the level of USD 13,600 per person, consists in the fact that

<sup>&</sup>lt;sup>37</sup> E..Gaidar. Anomalies of Economic Growth, pages 27-29

<sup>&</sup>lt;sup>38</sup> The author sets aside the questions that are out of scope of this work, such as, to what extent this coincidence of "threshold democratization levels" in the works of different authors is an objective regularity or a coincidence, whether this threshold level is invariable in time or it must grow in the course of time, and if so, if there is a single opinion as for the path of its change, etc.

<sup>&</sup>lt;sup>39</sup> "The revolutionary nature of growths". Renaissance Capital, 22 June 2011, 93 p.

<sup>&</sup>lt;sup>40</sup> N. Vardul. Price of Democracy. What should be average per capita GDP to make the country "immortal" democracy and not to fall into "endless" authoritarianism. "Profil", July 4, 2011, pages 28-29.

<sup>&</sup>lt;sup>41</sup> The author sets aside the obvious discussion on the matter: whether this level is invariable (in fixed prices) in time or it tends to drift upwards in the course of time (as much as amount of material wealth around us is growing)?

such thresholds do not refer to energy exporting countries. This exception is based on experience of the Persian Gulf countries having high income and, according to the report, "unshaken" autocracy. According to assessment of the report authors, 'eternity" of oil autocracy starts with USD 19,000 per person. As stated by N. Vardul analyzing report conclusions, the situation is imparted certain piquancy by the fact that "when Putin set the task of the next duplication, he has assessed the already reached level of per capita GDP as equal to USD 19,000 per person – and this is the threshold, from which "eternity" of autocracy starts.<sup>42</sup>

That is why, the first way of searching for the answer to the raised question – defining, what group Russia refers to (that of highly developed or other countries, democratic or other countries), so that to make further conclusion of whether PSA regime is applicable for this group of countries, has not been probably formalized to the sufficient extent and is rather subjective.

However one can consider undoubtedly that, to shape democratic institutions, any country should reach certain level of economic well-being that makes democratization processes irreversible. Essentially, this is the first law of dialectics: transformation of quantity into quality. It follows from the research, Gaidar quotes in his work, that this threshold corresponds to the per capita GDP of approximately USD 10,000 per person (in 2005 prices). The same level is specified in research of Renaissance Capital investment bank. This means that in 2003 Russia did not reach such level, while in 2009 such level was already exceeded. Therefore, one could make a conclusion that it was fair to state that wider application of PSA regime in Russia in 2003 (and, probably, earlier) would have been adequate (while use of licensing regime, on the contrary, would have been inadequate) to the level of country's economic development. Since in the period between 2003 and 2009 Russia exceeded this threshold, it means that transition to the system of subsoil use that is considered to be adequate for states referred to the area above this threshold could have started only recently. But in our opinion, this statement would be also light-weighted.

As far as I remember, the idea about per capita GDP thresholds articulated by Gaidar in his "Anomalies of Economic Growth" made me suggest that peaks of distribution curves of investment regimes of subsoil use (PSA and "tax plus royalty") by countries will fall on different levels of per capita GDP: PSA peak will fall to the lesser level of per capita GDP than that of distribution curve of "tax plus royalty" regime. And that, apparently, these peaks will be located, respectively, on the left of the threshold – according to Gaidar, - level of per capita GDP (PSA, in the area of smaller values) and on the right of it ("tax plus royalty", in the area of greater values) (see Figure 3).

That is why this author has chosen the *second way* by setting the task to analyze distribution of tax regimes of subsoil use – individualized (PSA) and unified/generalized ("tax plus royalty" applied both in civil law concessions and in administrative law licensing regime) in

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<sup>&</sup>lt;sup>42</sup> lb.

the states worldwide depending on level of their economic development, i.e., depending on level of their per capita GDP.

The author has risen two questions:

- (1) What are average weighted levels of per capita GDP by countries that apply different regimes of subsoil use, and what is their distribution in the range of economic development by number of countries, level of current and future (i.e. proven reserves) production, and how far are they from the threshold of democratization discovered in the above mentioned research works?
- (2) To what extent can PSA regime be considered only as "transitional" one, or does it have its own niche in Russia, which is adequate to its economic and legal, and not "image-based" competitive position as compared to other investment regimes of subsoil use?

#### 7. Initial Data

I am not aware of works that assess applicability of investment regimes of subsoil use (PSA, concessions, licenses) in countries with different level of economic development. That is why I cannot believe that I am safe from errors made by other researchers. However, at the initial stage of researching applicability of different types of agreements between foreign investors – subsoil users (usually international vertically integrated oil corporations) and the host country, which owns subsurface resources, the author has published the study (the first of this kind in the then USSR), in which he – based on Barrows data - has developed ranking of agreement types by tax rate level within applicable taxation systems<sup>43</sup>, but not in connection with level of economic development of receiving states. That is why the author proceeds from the idea that his current research is of pilot character and as such is built on the wide range of assumptions.

UN statistics was used as the basis for calculation of levels of per capita GDP by PPP. Due to growth of standards of living and inflation of US dollar as the currency of PPP measurement, calculations for 2009 had to be extended with a new range of higher levels of per capita GDP (USD 50 - 120 thousand per person) that was not used/needed in calculations for 2003. Therefore, calculations for 2003 include seven ranges, while calculations for 2009 contain eight ranges of change of per capita GDP level of analyzed states.

Country statistics of subsoil use regimes was kindly furnished to me by an old acquaintance of mine, Mr. Gordon Barrows, head of Barrows Co, New-York-based firm that bears his

<sup>&</sup>lt;sup>43</sup>A. Konoplyanik. Main Types and Conditions of Agreements Existing in Oil Industry of Capitalistic States between Transnational Corporations and Host Countries. - "Bulletin of Foreign Commercial Information" (BIKI), 1989, Special Issue # 10, pages 3 – 23.

name, which according to oil community professionals is the best, consistent, regularly extended and updated collection of laws, petroleum & subsoil investment agreements for all countries worldwide. Mr. Barrows has for a long time held the position of Vice-President of the Association of International Petroleum Negotiators (AIPN) coordinating document base of laws, agreements and contracts.

The first stage of calculations was performed by my then PhD student Maria Belova during the period of the last stage of "fight for PSA" by results of analyzing oil legislation of 180 states worldwide based on the data kindly furnished by Gordon Barrows. At that time, calculation results were not published (for reasons stated above), and were only partially used in a number of public speeches<sup>44</sup>. The second stage of calculations was performed by my then another PhD student Elina Abaeva in 2010 by results of analyzing oil legislation of 177 states worldwide based on the data that were also kindly provided by Gordon Barrows. Calculation results were also only partially used in some public speeches.<sup>45</sup> Consolidated results were recently published in Russian in Russia<sup>46</sup>.

Summarized input data for calculations for 2003 and 2009 are presented in table 2.

Table 2 - Summarized Data for Applied Regimes of Subsoil Use Worldwide, 2003 and 2009

Indicators	2003			2009				
	units	%	units	%	units	%	units	%
Number of analyzed countries,	180	100		100	177	100		100
including								
countries that run commercial			91	51			104	59
oil production, including those				(100)				(100)
applying the subsoil regime of:								
- tax plus royalty	113	63	45	(49)	111	63	55	(53)
- PSA	54	30	34	(37)	55	31	38	(37)
- both	13	7	12	(13)	11	6	11	(11)

<sup>&</sup>lt;sup>44</sup> See e.g.: A. Konoplyanik. "Russian Oil Taxation System Development (a continuous debate between supporters of fiscal-oriented and investment-oriented approaches)". – Presentation at the 15th International Petroleum Tax Conference, 11 – 12 November 2004, Oslo, Norway.

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<sup>&</sup>lt;sup>45</sup> See e.g.: A. Konoplyanik. "Alternative Investment Regimes for Direct Foreign and Domestic Investments in Russian Subsoil". - Presentation for the Eurasia Energy Governance Programme of the Center for Energy, Marine Transportation and Public Policy (CEMTPP), Columbia University, New York, NY, 19 & 22 April 2010; E. Abaeva. Approaches to Selecting Optimal Regime of Subsoil Use. – Students' research Conference of Gubkin Russian State University of Oil and Gas, Moscow, April 2011.

<sup>&</sup>lt;sup>46</sup> A. Konoplyanik. The means from "legal vacuum". Level of economic and legal development of the state defines the choice for subsoil investment regimes. – "Oil of Russia", 2012, № 8, pages 20-24 (part 1); № 9, pages 26-29 (part 2), № 10, pages 16-23 (part 3).

Calculated using data of the Association of International Petroleum Negotiators (AIPN) and Barrows Co kindly furnished to the author by Mr. Gordon Barrows

(Table 2. Summarized Data for Applied Regimes of Subsoil Use Worldwide, 2003 and 2009)

#### 8. General Picture

Out of 177 states of the world covered by statistics of AIPN/Barrows Co as for applied regimes of use of subsurface resources in 2009 (irrespective of whether these countries run commercial oil production or not), legislation of 111 countries provides for concessionary / licensing regime, 55 countries establish PSA and 11 countries allow using both regimes. In Europe and America, concessionary and licensing systems of subsoil use prevail, while PSAs dominate in economies in transition. In spite of minor changes in number of countries that apply either regime, distribution structure of regimes of subsoil use by countries has remained unchanged during the analyzed period: "tax plus royalty" system is twice more popular in the world as compared to PSA regime (approximate relation is 2/3 and 1/3). Simultaneous application of both regimes is allowed in less than 10% of the states worldwide.

Three fourths of states that use "tax plus royalty" regime are net importing countries. Net importers make up only half of the states that apply PSA regime. States that apply both regimes simultaneously have the highest level of own production by groups of countries that apply either of regimes – average weighted level of oil production for group of these countries is approximately twice higher than in the group of states that apply "tax plus royalty" regime, and three times higher than that applying PSA regime. Average production level of the first group of countries has not changed considerably during the period 2003 – 2009 (minus 2%), while production in "tax plus royalty" group reduced for 17%, and in PSA group increased for 7% (see figure 7).

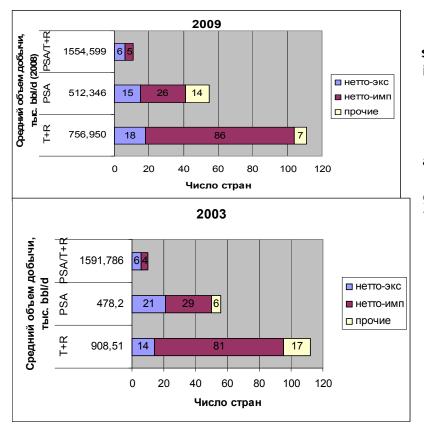


Figure 7.
Application of subsoil use regimes in the countries net importing and net exporting liquid fuel, with indication of average volumes of production by groups of countries that apply different regimes of subsoil use, 2003 & 2009

Calculations performed by M. Belova (for 2003) and E. Abaeva (for 2009)

(Figure 7. Application of subsoil use regimes in the countries net importing and net exporting liquid fuel, with indication of average volumes of production by groups of countries that apply different regimes of subsoil use, 2003 & 2009)

In 2003, only 91 countries out of 180 ran commercial oil production. In 2009, number of such states (out of 177) increased up to 104. Thus, in 2003 - 2009, number of oil producing countries increased almost for 15% and their share in the analyzed set of states increased from 50% up to 60% (table 2).

Availability of statues of regime of subsoil use in the countries that do not run commercial oil production is accounted by the fact that:

- such country can produce any other useful mineral (this work considers only oil industry, while regime of subsoil use can be established for mineral and raw material industries in general, as, e.g., by the Law "On the Subsoil" in Russia), or
- the country performs exploration and appraisal that has not yet resulted in commercial discoveries, or
- the government of a host state, which positively assesses oil and gas content and prospects for exploration activities and thus predicts future commercial discoveries, has been forming in advance favourable investment climate for subsoil use by creating predictability of

national "rules of the game". It thus creates investment stimuli for potential subsoil users to invest in exploration and production in this host state.

In my opinion, growing number of oil producing states through the analyzed period proves the validity of the policy aimed at advanced formation of the subsoil use regime in the county that does not run commercial production of oil and/or other mineral resources so far, as this reduces investment risks for potential investors and therefore motivates exploration and appraisal in the countries not referred yet to the category of oil producers. On the other hand, extending number of oil producing countries witness irreversible scientific and technical progress that allows to expand commercial production with hydrocarbon reserves that were previously unavailable and/or unknown. This is another economic argument in the "peak oil" debate which proved the thesis which I have been constantly supporting that the "Hubbert's curve" peak has been moving upward and right-hand within the time-frame<sup>47</sup>.

For 2003 – 2009, number of oil producing states increased by 14 countries, while 2/3 of "new" oil producers use licensing / concessionary regime of subsoil use, and 1/3 of them uses PSA regime. This is why, in the distribution structure of oil producing states by applied regimes of subsoil use both number and share of countries that apply "tax plus royalty" regime has increased more significantly than number of countries applying PSA regime (share of the latter states remained unchanged): over 50% of oil producing countries apply "tax plus royalty" pattern, and less than 40% of countries apply PSA. Share of oil producing countries using both regimes has reduced insignificantly but remained at the level above 10% (table 2). In oil exporting countries PSAs are equally popular with concessionary and licensing patterns, while oil importing countries apply mostly "tax plus royalty" regime.

Currently, the group of main oil producing states has the following preferences concerning applied regimes of subsoil use (data for 2008, rounded, in descending order within every group):

(A) with production of over 1 million barrels per day (MBD):

- PSA regime is applied in 8 countries (China, Iraq, Algeria, Angola, Libya, Qatar, Indonesia, Azerbaijan); maximum production in the group is by China (3.0 MBD), while Azerbaijan has minimum production level (1.0 MBD);
- "Tax plus royalty" regime is applied in 10 countries (Saudi Arabia, USA, Iran, Canada, Brasil, Kuwait, Venezuela, Norway, Kazakhstan, United Kingdom); Saudi Arabia has the highest production of 9.8 MBD, while the UK has minimum production level of 1.5 MBD;

<sup>&</sup>lt;sup>47</sup> A. Konoplyanik. Evolution of oil and gas markets: objective laws for movements from physical energy to paper energy markets (pages 163-178)". – in: A. Makarov (ed.), "Seventh Melentiev's Reading. Collection of scientific papers." – Moscow, Energy Research Institute, Russian Academy of Sciences, 2013, 214 pages.

- three countries allow simultaneous application of two regimes (Russia, UAE, Nigeria), with production in Russia at the level of 9.9 MBD, and in Nigeria at the level of 2.2 MBD;
- (B) with production level varying from 200 thousand up to 1 million barrels per day:
  - PSA is applied in 8 countries (Oman, Malaysia, Sudan, Ecuador, Syria, Equatorial Guinea, Vietnam, Gabon); production level in Oman amounts to 0.82 MBD, and in Gabon 0,24 MBD;
  - "tax plus royalty" is used in 6 countries (Argentina, Colombia, Australia, Thailand, Democratic Republic of Congo, Denmark); Argentina produces 0.80 MBD, while Denmark produces 0.26 MBD;
  - three countries allow both regimes (India, Egypt, Yemen); production in India comes up to 0.88 MBD, and Yemen produces 0.29 MBD.

Thus, in group of 38 main oil producing countries (with production level varying from 200 thousand up to 10 million barrels per day), PSA is applied in 16 countries, "tax plus royalty" is applied in other 16 countries, with legislation of six countries establishing simultaneous use of the two systems of subsoil use.

This means that the group of major oil producers is less "tax plus royalty"-oriented than the whole community of oil producing states. In this group:

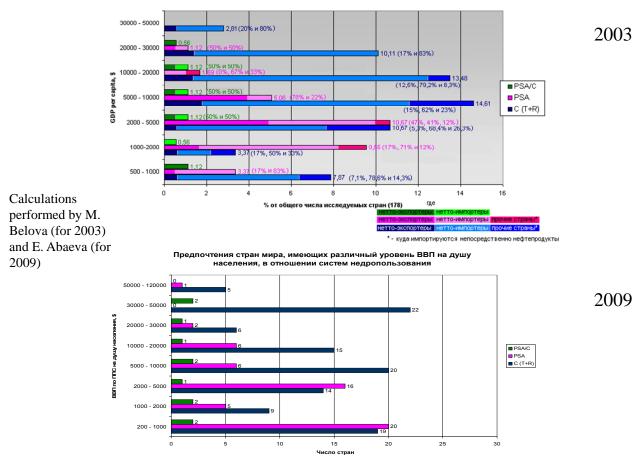
- dominance of "tax plus royalty" over PSA disappears and both investment regimes for subsoil use have equal shares (42%),
- share of multiple investment regimes is higher (16%) compared to the mean average through all oil producers.

## 9. Regime of Subsoil Use and Level of Economic Development

For all countries (both oil-producing and non-producing but possessing petroleum legislation) calculations have confirmed that both in 2003, and in 2009 peak of applying PSA regime fell, as was assumed within the basic hypothesis, on the countries with lower level of per capita GDP than those with "tax plus royalty" regime. Peak of applying PSA regime fell on the countries with GDP up to USD 5000 per person (from 2003 to 2009 just redistribution of countries within this diapason took place). Peak of applying "tax plus royalty" regime fell on the countries with higher GDP. Most of petroleum arrangements of this type concentrated within USD per person 5-20 and 5-50 thousand diapasons in 2003 and 2009, respectively, with a single peak 5-10 thousand in 2003 and two peaks 30-50 and 5-10 thousand in 2009 (see Figure 8). Thus, during this time, scopes of application of the two regimes have expanded: for PSA – toward countries with lower level of per capita GDP, for "tax plus royalty" – toward countries with higher level of per capita GDP. Statistically, Russia in both

cases turns out to belong to per capita GDPs, where license-based concession regime is used oftener. We'd like to emphasize that we are talking about all countries with subsoil legislation that both run and do not run commercial oil production.

Figure 8. Preferences of states in relation to applied systems of subsoil use depending on the level of per capita GDP



(Figure 8: Preferences of states in relation to applied systems of subsoil use depending on the level of per capita GDP)

A separate explanation is probably required for the fact that the group of low-income states turned out to include considerable number of states that apply not only PSA (which does not contradict to logic of our explanations above), but also states that apply "tax plus royalty" regime. In our opinion, it can be explained by the character of technical assistance programmes rendered to the poorest states by donor states and international financial institutes. Standard requirement of both when providing technical assistance is implementation of structural (institutional) reforms, including those in legislative field.

The first wave of legislative reforms (legal assistance within development programmes) emerged after the Second World War, when lawyers, mostly from the USA, brought new

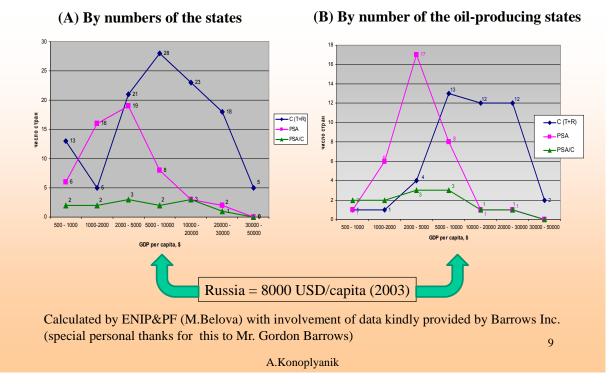
legal systems to the countries of Latin America, Africa, and, to the lesser extent, Asia, in particular, paving the way there for foreign (at that time mostly American) investments. The second wave of legislative reforms (legal assistance within development programmes) took place after break-up of the COMECON (Council for Mutual Economic Assistance) and the USSR. Technical assistance programmes, including legal reforms, were developed according to approximately the same scenario as during the first wave, only this time EU countries turned out to be strong competitors to the USA. During the first wave, transplantation of institutional reforms was mostly performed to developing countries, while during the second wave – to transitional economies. Campaigns held in the recipient countries of the technical assistance programmes which were aimed to transplant operating conditions customary for western business in their native economies were either accompanied by the promise of financial support to the countries-recipients (most of economies in transition) or were obligatory condition for their affiliation with the EU (like former COMECON states)<sup>48</sup>. And most of this "institutional reforms" as part of technical assistance programs have been done by the consultancies of the donor states which have usually quite straightforwardly transplanted in (exported to) the less-developed economies the same legal rules (as a part of technical assistance package) that have been in existence in the western economically developed states-donors. This is why, in our analysis, countries in the area of minimum per capita GDP are mostly countries that were recipients of technical assistance programmes. Usually these are the poorest countries that do not run commercial production of mineral resource extraction, that is, the countries that have no their own large-scale sources of economic development, instead of which technical assistance programmes are introduced (aimed at, inter alia, at creating institutional conditions for exploration and - in case of commercial discoveries - production activities) accompanied by transplantation of the license-based system of subsoil use that is applied mostly in highly developed donor countries.

The character of the correlations between PSA vs "tax and royalty" for all (producing and non-producing) and producing states only, stays in principle the same (PSA mostly within lower income and "tax plus royalty" – within higher-income states), though quantitative parameters, of course, differs slightly (see Figure 9).

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<sup>&</sup>lt;sup>48</sup> See details about effect of transplantation during two waves of legal reforms: Berkowitz D., Pistor K., Richard J.-F. The Transplant Effect. //The American Journal of Comparative Law. 2003. Vol. 51 (1).

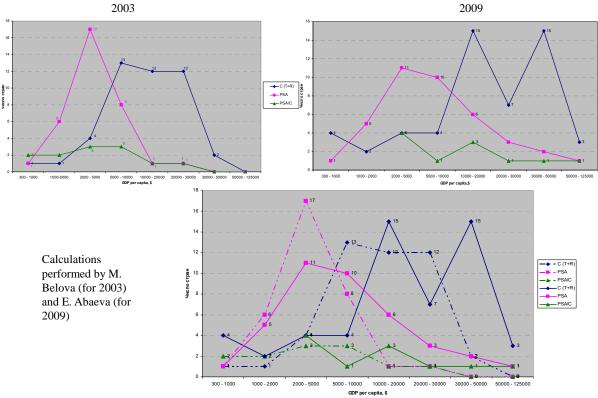
Figure 9. "Tax plus Royalty" (concessions & licenses) vs. PSA worldwide: distribution curves for all states and only producing states shows same trends (e.g. 2003 case)



(Figure 9: "Tax plus Royalty" (concessions & licenses) vs. PSA worldwide: distribution curves for all states and only producing states shows same trends (e.g. 2003 case))

For **countries that run commercial oil production**, peaks of applying two investment regimes of subsoil use are shown even more expressly and are greater drawn apart in the range of countries with different level of per capita GDP. In 2003, peak (number of states that applied) PSA fell on the countries with GDP range of USD 2–5 thousand per person, while "tax plus royalty" corresponds to the range of USD 5–30 thousand per person. In 2009, these peaks were extended as PSA peak remained on the same place, though becoming less pronounced, as number of countries that applied PSA regime in the area of higher values of per capita GDP has increased. On the contrary, peak of "tax plus royalty" regime became more pronounced, though converted into "double-peak", and shifted to the area of higher values of per capita GDP – USD 10–50 thousand per person. In 2003, PSA peak was higher than peak values of "tax plus royalty" regime, while in 2009, on the contrary, peaks of license-based concession regime exceeded PSA regime peak (see Figure 10). In both cases, Russia takes the place between peak areas of application of two regimes.

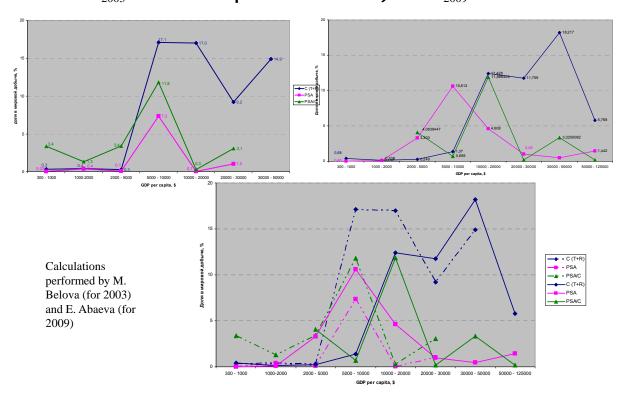




(Figure 10: Preferences of oil producing states in relation to applied systems of subsoil use depending on the level of per capita GDP)

The picture changes drastically when moving from distribution by number of countries that apply different regimes to **distribution in terms of volume of current production** in these countries. In 2003, peaks of all three regimes coincided in the area of USD 5–10 thousand per person. However, by 2009 all peaks drifted to the right: peak of combined application of the two regimes – to the range of USD 10–20 thousand per person, and peak of application of "tax plus royalty" regime – to the range of USD 30–50 thousand per person. Both in 2003 and 2009 peak of "tax plus royalty" regime (global production share) exceeds PSA peak (see Figure 11). In 2003, Russia took its place in the area of peak of application of all three regimes, and in 2009 it moved to the area in between peaks of application of PSA regime and "tax plus royalty" regime.

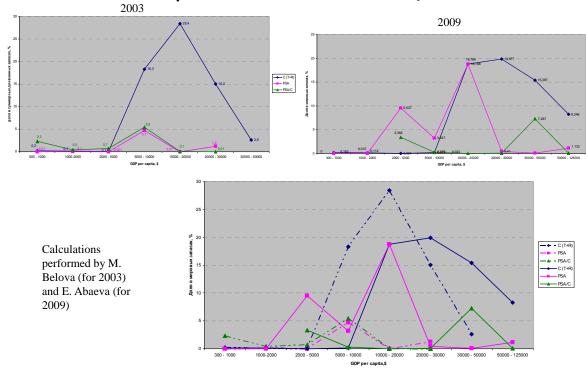
Figure 11. Preferences of oil producing states in relation to systems of subsoil use depending on the level of per capital GDP (global production share) 2009



(Figure 11. Preferences of oil producing states in relation to systems of subsoil use depending on the level of per capital GDP (global production share))

The picture also changes when moving from distribution by volume of current (today's) production to distribution by **volume of future production in oil producing countries** (i.e. by volume of their current proved recoverable reserves, in other words, by volume of available production facilities/capacities). In 2003, PSA peak matched the range of USD 5–10 thousand per person, while that of "tax plus royalty" regime matched the range of USD 10–20 thousand per person. At the same time, one can notice almost six-fold gap between levels of peak values of the two regimes that year (PSA peak is lower). In 2009, peak values of the two regimes suddenly approached each other, and both peak values moved one range to the right (see Figure 12). This clearly demonstrates that in the future the role of PSA in global (future) production will increase significantly.

Figure 12. Preferences of oil producing states in relation to systems of subsoil use depending on the level of per capital GDP (global share of proved recoverable reserves)



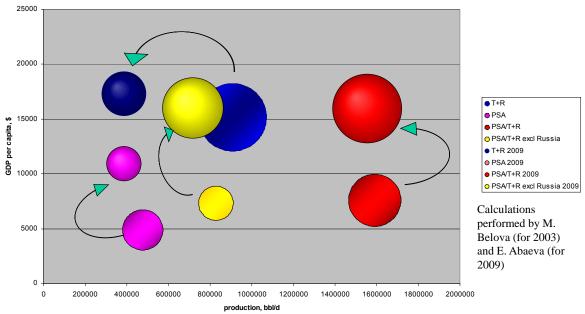
(Figure 12. Preferences of oil producing states in relation to systems of subsoil use depending on the level of per capital GDP (global share of proved recoverable reserves))

Summary by results of calculations is presented in Figure 13, from which it follows that our initial hypothesis, according to which PSA regime is applied mostly in states with lower level of economic development (per capita GDP), has been fully confirmed. This means that application of different regimes of use of subsurface resources is not of image-based, but of objective economic nature related with the level of legislative risks of investment projects of subsoil use in host countries with different level of economic development, different level of development of their legal systems (institutional environment) and different level of investors' protection against non-commercial risks.

In 2003, average per capita GDP for a group of states applying PSA was three times lower than that for a group of states applying "tax plus royalty" regime (USD 5 vs. 15 thousand per person). In 2009, this gap was reduced to less than double difference (USD 11 vs. 17 thousand per person), and that was almost exclusively due to outstripping economic growth in the countries applying PSA, and their narrowing gap with the level of per capita GDP of the states applying "tax plus royalty" (mostly economically developed democracies). During this period, Russia moved (leaped) from the range of per capita GDP that was slightly higher than the level typical of the countries with PSA regime prevailing, to the range of per capita

GDP that was slightly lower than the level typical of the countries with "tax plus royalty" regime prevailing (from USD 8 up to 15 thousand per person).

Figure 13. Average GDP per capita and oil production levels: changes from 2003 to 2009 (size of the ball means average volume of proved reserves for each group of countries)



(Figure 13. Average GDP per capita and production (size of the ball means average volume of proven reserves for each group of countries)

For the period of 2003–2009, average weighted levels of production by groups of countries that apply two regimes of subsoil use simultaneously and that apply only PSA reduced insignificantly, and decreased more than two times in the countries applying concession- and license-based regimes. Volume of proved recoverable reserves by the group of countries that apply two regimes has increased considerably, while that for a group of countries applying PSA and "tax plus royalty", respectively, has reduced insignificantly (PSA) and very considerably (T+R).

In our opinion, seeming image-based inconsistency between per capita GDP of Russia in the range of applying PSA regime in 2009 (this "inconsistency" could be hardly seen in 2003) is not the reason for attempts to substantiate the need/expediency to refuse to apply PSA in Russia. In our opinion, PSAs must take their competitive niche in Russia within the concept of multiple equal investment regimes of subsoil use in the country.

# 10. Investment Regimes of Subsoil Use: Transplantation of Institutions

It is a matter of common knowledge that developing countries and transitional economies (i.e., countries that change model of their social and economic development) have at least one very important advantage compared to developed market economies — advantage related to their underdevelopment: to catch up, in most cases they don't need to invent any new technologies or institutions, they only need to borrow them. Simplicity of this task turns out to be deceptive; actually borrowing process is very complicated<sup>49</sup>.

There are two main ways of establishing new institutions. First, institutions can be constructed, invented, and then implemented (the so called *innovative* course of institutional development). The second way is transplantation, or borrowing of institutions from advanced systems (the so called *imitation* course). Why is transplantation a good and convenient method? Because it reduces uncertainty. We know in advance that this institution is efficient. It is attempted to slightly modify and implement laws that are efficient in developed countries. Or just to transplant ready-made forms, in particular, mechanisms of subsoil use applied in developed countries (including, inter alia, desire to acquire one of "distinctive" features of a developed country through such transplantation).

As fairly stated by B. Polterovich, a typical mistake made by most developing countries is their ambition to borrow too advanced institutions<sup>50</sup>. "Here they follow seemingly evident, and actually erroneous logic: why repeat the past, if it has already passed? One should focus at the most advanced solutions".

But, first, as we have already stated above, to apply license-based system of subsoil use, comprehensive institutional environment with high predictability level is required to minimize risks of unified "tax plus royalty" tax system, so that high tax risks of the unified tax system (that do not take into account individual characteristics of certain fields) would be compensated by the low level of legal (non-commercial) risks, which is, first of all, ensured by the higher level of predictability of actions of the host state (due to more detailed prescribed rules and regulations) and responsibility of its actions (which can be disputed through the independent and neutral court system in case an investor-subsoil user would consider itself being unfairly discriminated by the host state). But how can we talk about predictability of actions of the Russian state, if, according to E. Djyachkova, "in 20 years, about 10 tax regimes were tried, and changes of tax and levies system took place almost every year".<sup>51</sup>

<sup>&</sup>lt;sup>49</sup> V.M. Polterovich. Strategies of Institutional Reforms, or Art of Reforming. Preprint WP10/2007/08. Moscow: GU-VSHE. 2007.

<sup>&</sup>lt;sup>50</sup> lb.

<sup>&</sup>lt;sup>51</sup> E.A. Diyachkova. Economic Regulation of Oil and Gas Industry in Post-Soviet Russia. – Geoinformmark, 2011, page 4.

Second, a strategic investor that enters economy of the host country with a definite purpose of developing the investment project in extraction industry (in the upstream, especially if Greenfield project) requires, most probably, at least (i) "legal isolation" (legal ring-fencing) for its investment project that would take into account its specificity, that is formation/monetization of mineral resource rent in this specific project, which is different from rent formation/monetization in other subsoil projects (which is a prerequisite for differentiated tax treatment), and (ii) "enclave of stability" for its project, i.e. a guarantee that the rules will not be changed in the course of the game through at least the investment phase including pay-back period. Therefore, a strategic investor (focused at the full lifecycle of the subsoil investment project that lasts several dozens of years) is looking for (as well as the host state should be) the differentiated system of tax treatment of the investment projects that would allow to maximize formation (and thus monetization) and optimize distribution of mineral resource rent from this very project through the project life-cycle. Such differentiated taxation must take into account both inter-project and internal project differentiation of mining rent<sup>52</sup>. Therefore, transplantation of license-based system of subsoil use in developing countries or transitional economies, where institutional environment lacks or has not been formed to the sufficient degree is premature, untimely, non-optimal. At the same time, transplantation of PSA regime as project-oriented "enclave of stability" with the customized (for this project) system of distribution of mineral resource rent between the contractual parties of subsoil use agreement is a timely and rational action in today's environment.

# 11. PSA and the Concept of Multiple Investment Regimes of Subsoil Use in Russia

Of course, one can consider PSA in Russia as an intermediate mechanism. In this case, its application in Russia would logically and efficiently fit the general reforming strategy that B. Polterovich calls the "strategy of intermediate institutions" (there are different transplantation strategies: shocking therapy, breeding, strategy of intermediate institutions)<sup>53</sup>. "Its essence is in creating the target institution by building a chain of alternating institutions, i.e. by building the institutional course that links the initial institution with the target one. As the initial institution, one can use either already existing, newly constructed, or initially borrowed, transplanted institution. Here the most important point is an understanding that it is absolutely not necessary to copy the most advanced, the most progressive institution. It is necessary to choose the most suitable of the institutions we aware of taking into account conditions of donor country. A suitable institution should be selected from the entire variety of these, without ignoring either history of developed countries, or experience of developing countries". In this case, choice of PSA as the institution, which is suitable for current

<sup>&</sup>lt;sup>52</sup> See details in: A. Konoplyanik. Reforms in Russian Oil Industry (Taxes, PSAs, Concessions) and their Effects for Investors. – Moscow: "Olita", 2002, 217 pages.

<sup>&</sup>lt;sup>53</sup> V.M. Polterovich. Strategies of Institutional Reforms, or Art of Reforming. Preprint WP10/2007/08. Moscow: GU-VSHE, 2007.

conditions of the country, already turns out to be substantiated, for it should be considered as the "enclave of stability" in objectively unstable (due to the fact that it continues to be developed) institutional environment.

Of course, proceeding from results of statistical analysis, according to which highly developed countries tend to use license-based concession regimes of subsoil use, one can conclude that PSA is not the most "advanced" institution. In this case, agreeing with an objective fact - inclusion of PSA regime in Russian legislation and successful implementation of three PSA projects in the country (the only existing PSA projects in Russia - Sakhalin 1 & 2 and Khariaga), one could agree to retain PSA mechanism in Russian system of subsoil use on a temporary basis (that is, to agree with just temporary transplantation of this very institution) proceeding from the following assumption: though PSA is the most efficient mechanism, but it is placed at the starting point of the institutional course that would finally allow, simultaneously breeding and managing its development, to come to another, advanced institution which is license-based system of subsoil use. In this case, PSA must/can be considered as "intermediate" institution (according to Polterovich). Or as a temporary phenomenon, a temporary deviation from the norm, a form of temporary derogation from the general rule. However, as Polterovich puts it, it is not necessary to think of an intermediate institution as of the one, from which the target institution evolves. An intermediate institution can play another role.

Polterovich has substantiation of such important notion as "institutional experiment". "In the course of institutional development, – he writes, – in certain cases one can afford to build different institutions, for example, in different regions, or allow development of competitive systems of institutions so that finally one could choose the institution, which best suits this institutional environment"<sup>54</sup>. This "allowing development of competitive institutions" – only on the permanent, and not temporary basis, is "another role" of PSA regime.

The author and a number of his colleagues involved in creating PSA legislation of Russia from the very start have been writing that the purpose of introducing two parallel regimes of subsoil use in Russia consists in creating competition between legally equal investment regimes for an investor, so that potential investors subsoil-users were able to choose the preferred regime of subsoil use (license-based or PSA regime) as early as at the stage of competing for the right of subsoil use<sup>55</sup>. This will bring regulator to improve conditions of subsoil use within this regime that would enjoy lesser investors' demand (i.e., investors would vote for the more efficient investment regime of subsoil use with their money/investments). In the given Russia's case this would have meant to improve the

<sup>&</sup>lt;sup>54</sup> lb.

<sup>&</sup>lt;sup>55</sup> A. Konoplyanik. Concept of Legalizing Product Sharing Agreements in Russia: Key Aspects. - "Mineral Resources of Russia", 1994, No 6, pages 29 – 36; the same author. Concept of Legalizing Product Sharing Agreements in Russia: Key Aspects. - "Oil Industry", 1994, No 11 – 12, pages 6 – 15; A. Averkin, A. Konoplyanik, M. Subbotin. Investor Won't Give its Money. Until it Receives Legal Consistency. – "Oil and Capital", 1995, No 12, pages 10 – 12.

conditions of licensing regime staying within the concept of simultaneous implementation of at least two regimes in the subsoil use (licensing regime and PSA). However, the Russian law-makers have chosen another way: they de facto prohibited in the subsoil use the investment regime that was most demanded by investors (i.e PSA), because its application was more burdensome for the state agencies and – the most important – it was not acceptable for non-state oil companies that were in favor at that time for self-seeking reasons stated above.

What is the main assumption underlying the concept of multiple investment regimes of subsoil use in Russia? It consists in the evident fact that all fields, and therefore all upstream investment projects in this country, are different. In Russia, with its huge areas and multiple oil and gas basins/provinces, both geological and geographical and climatic conditions of their development differ considerably. That is why I proceed from the idea that we need to attempt building such investment regime, which would allow for certain flexibility of application and would take into account individual features of specific projects.

In the 1990-ies, this philosophy was put into practice, but failed to be fully prescribed in legislation because of the position of the Russian State Duma. The Law "On the Subsoil", in its first version adopted in 1992 allows (Article 12) implementing multiple investment regimes of subsoil use in the form of different types of petroleum arrangements between host state and an investor, including concession agreements, PSAs, risk-service contracts. This philosophy – multiplicity of investment regimes for subsoil use – was then further (tried to be) developed and implemented. Initially, the law "On PSAs" was developed as one of the components of the package that included two draft laws – the second one was the draft law "On Concessions". But it was unfortunately rejected by the State Duma in the first reading <sup>56</sup> although mostly because of negative political connotations (inheritance of colonialism, etc.; the situation was not saved even by referring to "historic" memory of the Communist Party of the Russian Federation giving an example of Lenin's concession policy, including development of oil concessions in Baku and Grozny during the period of New Economic Policy in post-revolutionary Russia in the early 1920-ies <sup>57</sup>). The last government document that allowed for philosophy of multiple investment regimes of subsoil use was "Main

<sup>&</sup>lt;sup>56</sup> A new concession law adopted in 2005 is not related with this draft that was developed under leadership of the author in 1994-1995 (and failed the first reading in the State Duma) with the similar name; the current concession law excluded natural resource industries from its scope.

See A.Konoplyanik. USSR Oil Concession Policy Alternatives: The Lessons from Domestic History and Modern Western Practice. - EAEE/ITEP European Conference "Energy Trends: Integrated Europe - Decentralized USSR". October 21-24, 1990, Tallinn. Conference Proceedings, vol. II, p. 365-394; the same author. Soviet concessions to foreign oil companies: then and now. - "Oil & Gas Finance and Accounting", Winter 1990, v.5, № 4, p. 213-225; the same author. USSR Oil Concessions Policy Alternatives: The Lessons from USSR History and Modern Western Practice. - "Energy Exploration & Exploitation", Vol. 9, 1991, № 1 & 2, Special Issue - "Commercial Prospects for Soviet Energy", p. 29-49; the same author. Reforms in Russian Oil Industry (Taxes, PSAs, Concessions) and their Effects for Investors. – Moscow: "Olita", 2002, 217 pages.

Provisions of Energy Strategy of Russia for the Period Until 2020"<sup>58</sup>, approved by the Government of the Russian Federation in 2000; oil and gas section of this document was developed by the same group of people, including and headed by this author, on the basis of previous document, "Main Conceptual Provisions of Development of Oil and Gas Complex of Russia" also approved by the Government of the Russian Federation<sup>59</sup>.

However, in the beginning of the 2000-ies, country leaders gave their preference to the idea that has been lobbied through by M. Khodorkovsky and consisted in the so called "national tax system" or "national investment regime" actually aimed to reduce everything to one regime we have now – flat-scale Mineral Resource Production Tax (MRPT) and customs duty within the license-based system of subsoil use.

Still, I think it is expedient for the country to have in place multiple investment regimes of subsoil use. The matrix of these regimes, if built in the system of coordinates of "legal stability" and "favourable tax treatment", can provide at least 4 regimes of subsoil use placed in four different quadrants of such matrix (see Figure 1).

In simplified terms, *legal dimension* in this matrix would present two legal systems: public law and civil law systems<sup>60</sup>. In the public law system, the state is always higher than an investor and may practically without punishment change rules of the game in the course of the game, while the investor may not sue the state (the rights of the latter are protected with sovereign immunity), if, for example, the state has violated its promise to ensure stable rules of the game throughout the project implementation terms.

Investor's possibility to seek resolution in neutral commercial court under the public law is minimized, unless it is protected with respective international treaties. By the way, this aspect is accounted as one of the legal novelties of the Energy Charter Treaty (Article 26) that enables an investor among the Energy Charter Treaty member-states to directly (without prior reference to courts of national jurisdiction) refer to international arbitration (which is neutral, is not accounted to this state) with the claim against the host state in case of disputes, e.g. in case the host state has violated provisions of investment agreements with an investor, including agreements of subsoil use<sup>61</sup>. This is why, in public law regimes of subsoil use, in case all other parameters being equal, an investor is always ensured lower legal stability than in civil law regimes, where the state and an investors are supposed to be equally treated in

<sup>&</sup>lt;sup>58</sup> See Ministry of Fuel and Energy of the Russian Federation. *Main Provisions of Energy Strategy of Russia for the Period Until 2020* (approved by the Government of the Russian Federation, Minutes No 39 dated November 23, 2000). – Supplement to "Energy Policy" Journal, Moscow: Institute for Energy Strategy, 2001, 118 pages.

<sup>&</sup>lt;sup>59</sup>Ministry of Fuel and Energy of the Russian Federation. *Main Conceptual Provisions of Developing Oil and Gas Complex of Russia. – "Neftegazovaya Vertical"*, 2000, N1 (special issue), 113 pages.

<sup>&</sup>lt;sup>60</sup> See A. Konoplyanik. The Sixth Innovative Cluster. This is the Role Oil and Gas can Play in Russian Economy. – "Oil of Russia", 2012, No 4, pages 6-11, No 5, pages 9 – 15.

<sup>&</sup>lt;sup>61</sup> Maybe this novelty of the Energy Charter Treaty that does not allow the host state to feel free in violating undertaken obligations towards investors has become one of the reasons (erroneous, from my point of view) of Russia's withdrawal from provisional application of the Treaty?

terms of the rights and obligations, and where parties may set up counter claims in case such parties violate their obligations.

Speaking in larger terms, the range of *tax treatments* includes two forms: general, unified tax treatment (which is the same in quantitative terms for everybody, for each market player both within the subsoil use and in subsoil use and other industries), and individualized regime of mining rent distribution. This results in the given four-component matrix of investment regimes of subsoil use (see Figure 1).

The difference between regimes is that they are made of various combinations of tax and legal systems. This matrix presents current license-based regime, license-based regime with exemptions (individual benefits), which is a modification of the license-based regime and is currently valid for some difficult projects in Russia (offshore projects and projects in Eastern Siberia). The matrix also includes existing PSA regime (which is mostly valid in theory, as in practice there exist only three PSA projects that came into force before adopting the Law "On PSAs" and are protected with stabilization clauses both in the Law and in the PSAs), and concession regime, which is not yet allowed in mineral resource industries of Russia<sup>62</sup>.

Public law regimes (modifications of license-based regime) are less stable for the investor than civil law-based agreements of subsoil use. Unified tax systems are not optimal, they are not aimed to ensure balance of interests of an investor-subsoil user and the host state-the owner of subsurface resources, and they are not focused at optimal distribution of resource rent taking into account investor's risk level. That is why only PSA mechanism can ensure optimal tax load.

Substantiation of scopes of application of different regimes of subsoil use (from the above matrix) was described by the author in detail in his earlier publications and speeches<sup>63</sup>. The

 $<sup>^{62}</sup>$  See A.A. Konoplyanik. The Sixth Innovative Cluster. This is the Role Oil and Gas can Play in Russian Economy. - "Oil of Russia", 2012, No 4, pages 6-11, No 5, pages 9 - 15.

<sup>&</sup>lt;sup>63</sup> A. Konoplyanik. "Concession Agreement: Possible Place and Role in Investments Laws of Russia", pages 77 – 92, – in the book: Oil and Gas, Energy and Law, 2001 – 2002. Information Edition on Law Matters by Fuel and Energy Sector of Russia (annual). – Moscow, "Nestor Economic Publishers", 2001, 244 pages; the same author. Reforms in Russian Oil Industry (Taxes, PSAs, Concessions) and their Effects for Investors. - Moscow: "Olita", 2002, 217 pages; the same author. President's Error. Who is Really Interested in Russia in Abolishing PSA Regime? - "Oil of Russia", September 2003, No 9, page 62 - 67; October 2003, No 10, page 47 - 49; the same author. Investment Menu. - "Oil and Gas Vertical", 2004, No 16, pages 32 – 34; V. Grushin, A. Konoplyanik. Some Issues of Preparing and Concluding PSAs for the So Called "Small" Deposits and Possible Ways of their Solution (based on the content of report held at the Parliament hearings "Practice of Application and Development Perspectives of PSA Legislation", Moscow, State Duma, November 23, 2001) - "Neft, Gaz i Pravo Journal", 2001, No 6; V. Grushin, A. Konoplyanik. On Preparation and Conclusion of PSAs for the "Small" Deposits. – "Mineral Resources of Russia. Economics and Management", 2002, No 1 – 2, pages 68 – 72; V. Grushin, A. Konoplyanik, N. Oxengorn. On the Procedure of Transferring Small Hydrocarbon Deposits to PSA Regime (pilot scheme). – "Oil Industry", June 2002, No 6, pages 83 – 89; A. Konoplyanik. The Sixth Innovative Cluster. This is the Role Oil and Gas can Play in Russian Economy. - "Oil of Russia", 2012, No 4, pages 6-11, No 5, pages 9 – 15; the same author. "Alternative Investment Regimes for Direct Foreign and Domestic Investments in Russian Subsoil". - Harriman Institute Occasional Paper 2013, "The Harriman Review Occasional Paper Jan 2013", vol. 19, no. 1 (2013), (57+32 pp.); the same author. "Multiple Investment Regimes

main idea is that investment risks vary depending on areas of the resource range, and therefore, to develop fields situated in different areas it is necessary to apply investment regimes than ensure optimal combination of legal stability and favorable tax treatment for the investor and the state taking into account risks the subsoil user investor is exposed to.

By placing all deposits in coordinates of "unit reserves – number of fields", we obtain that due to uneven character of distribution of natural resources in subsurface, number of fields is reduced as far as unit reserves (of the field) grow. The investment risk curve is an apex-down parabola. The highest investment risks turn out to be related with the project of developing fields that are located on both side of the resource range – in the area of the largest and the smallest fields. That is why the scope of preferred application of PSA regime covers these borderline areas.

The middle part of the resource range that includes the most standard conditions of development and the lowers investment risks matches the area of the "simplest" – license-based – regime. In this area, non-optimal character of the regime is compensated (in terms of discounted cash flows) due to simplicity of its application.

In the area between the license-based regime and PSA, in the right part of the resource range that covers rather large fields with long duration of their development, stability of project terms for long-time horizon is important for investment projects developing such fields. Non-optimal tax system can be partly compensated by economy of scale. That is why in this part it is expedient to apply concessions that ensure, first of all, legal stability throughout the project implementation term.

In the area between the license-based regime and PSA in the left part of the resource range that covers smaller fields with shorter terms of commercial development, tax load becomes a more important element of field development decision-making. To increase rates of return and engage larger number of small fields in business turnover, it is expedient to allow combining several small fields in a single project in order to overcome the break-even profitability point.<sup>64</sup>

Moreover, it is expedient to come back to the principle of "two keys" in subsoil use that had existed since 1992 but was cancelled in 2003. Only this time, these "two keys" should not be, according to my proposal, used simultaneously, as this has been taking place during the period of 1992–2003: nowadays, one key should be fully given in the hands of regional authorities in relation to small fields (their threshold is to be prescribed in the law), while the

for Russian Subsoil Resources: Work in Progress or Utopia?" (Chapter 2, pp.29-60). – in: *Foreign Investment in the Energy Sector: Balancing Private and Public Interests*. Edited by Eric De Brabandere, *Leiden University*, and Tarcisio Gazzini, *VU University Amsterdam*. – Brill-Nijhoff, Nijhoff International Investment Law Series, June 2014, xxvi+286 pp.; etc.

<sup>64</sup> See E. Diyachkova, A. Konoplyanik. Production Sharing Agreements: Udmurt Version. *"Oil and Capital"*, 1995, No 12, pages 14 – 15; V. Grushin, A. Konoplyanik, N. Oxengorn. On the Procedure of Transferring Small Hydrocarbon Deposits to PSA Regime (pilot scheme). *—"Oil Industry"*, June 2002, No 6; pages 83 – 89.

other key should be retained in the hands of federal authorities responsible for fields having proved recoverable reserves (or reserves of another category?) that exceed the established threshold. That is, actually today's "one-key rule" will remain in force in the country, only this "one key" will be held in different hands for fields with different volumes of reserves: small fields will be controlled by local authorities and will receive bigger part of taxes from their development, while larger fields will be controlled by federal authorities.

The applied investment regime, within the set of such regimes allowed by the state-owner of subsurface resources, and within restrictions set by model agreements of subsoil use prepared by the state, is to be chosen by the investor even before it participates in the tender to obtain the right of subsoil use.

The following algorithm is to become the standard pattern of obtaining the right to use subsurface resources in the proposed scenario (its main components were described by the author earlier more than once)<sup>65</sup>. It is clear that to implement this approach, it is first of all necessary to legalize the concession regime in subsoil use (for example, through amending the existing law "On Concession Agreements" by spreading it over to the mineral resource industries as well and taking into consideration specific risks in these industries) and the law "On PSA" must be cleared off restrictions that actually nullify its application.

Within this algorithm, the state prepares a set of model agreements (license agreement, PSA, concession agreement) for the tender, with a number of open positions that must become subject of the tender. The main position is not a non-recurrent payment for providing the right to subsoil use (from the sales of a license – de facto "signing bonus"), but amount of discounted income (resource rent) to be received by the state – the owner of subsurface resources through the full upstream project lifecycle. Apparently, the state must independently perform preliminary feasibility study of field development in order to assess approximate amount of expected earnings for complete lifecycle of field development.

The investor who is to participate in the tender is provided the bid package including a set of model agreements (license agreement, PSA, concession agreement) with open positions that will become subject of bidders' competition. The bidder is to choose the most preferable (in

A. Konoplyanik. Concept of Legalizing Production Sharing Agreements in Russia: Key Aspects. — "Mineral Resources of Russia", 1994, No 6, pages 29-36; the same author. Concept of Legalizing Production Sharing Agreements in Russia: Key Aspects. — "Oil Industry", 1994, No 11-12, pages 6-15; A. Averkin, A. Konoplyanik, M. Subbotin. Investor Won't Give its Money. Until it Receives Legal Consistency. — "Oil and Capital", 1995, No 12, pages 10 — 12; A. Konoplyanik. Reforms in Russian Oil Industry (Taxes, PSAs, Concessions) and their Effects for Investors. — Moscow: "Olita", 2002, 217 pages; the same author. The Sixth Innovative Cluster. This is the Role Oil and Gas can Play in Russian Economy. — "Oil of Russia", 2012, No 4, pages 6-11, No 5, pages 9-15; ; the same author. "Alternative Investment Regimes for Direct Foreign and Domestic Investments in Russian Subsoil". — Harriman Institute Occasional Paper 2013, "The Harriman Review Occasional Paper Jan 2013", vol. 19, no. 1 (2013), (57+32 pp.); the same author. "Multiple Investment Regimes for Russian Subsoil Resources: Work in Progress or Utopia?" (Chapter 2, pp.29-60). — in: Foreign Investment in the Energy Sector: Balancing Private and Public Interests. Edited by Eric De Brabandere, Leiden University, and Tarcisio Gazzini, VU University Amsterdam. — Brill-Nijhoff, Nijhoff International Investment Law Series, June 2014, xxvi+286 pp.; etc.

its opinion) type of agreement of subsoil use that, according to his assessment, will ensure the best risk-to-benefit ratio under restrictions set by the state within coordinates of "legal stability – favourable tax treatment". Thus, the investor chooses the regime of subsoil use, in which he is ready to develop a certain field in case it wins the bid, thus maximizing its own benefit and the value of resource rent for the state. The state should be neutral for the investor's choice of investment regime in the tender since all such regimes are to be legally equal. However, it must be established that the regime of subsoil use chosen by the investor prior to the bid and announced in the course of the bid, cannot be changed after he won the tender and in the course of the subsequent project implementation.