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ENERGY FINANCING: CONDITIONS TO BE CREATED FOR PRIVATE INVESTMENTS

(Illustrated by the example of Russian oil and gas complex)

1. Investments in oil and gas are the driving force of Russia's economic growth

The oil & gas complex is characterized not only by a high and stable domestic and export demand for its products, but also by a high so-called "multiply" effect, i.e. it ensures a great demand for goods and services of adjoining industries. As shown by the estimates [1], the oil & gas multiplier in Russia is equal to 1.9 and corresponds to that of other oil- and gas-producing industrialized nations (Figure 1). The estimates made by the author with respect to the Priobsky oil field project [2] have shown that the Russian party's revenues related to adjoining "manufacturing" industries (viz. placing orders within Russian contractors, carriers, etc.) may be twice as large as its revenues along the "oil" line itself.

As the resources' base of oil & gas production moves eastward, northward and especially to the Arctic shelf, Russia's oil & gas complex provides a growing competitive demand for knowledge-intensive high-tech products of manufacturing industries. Russia's main knowledge-intensive production potential is concentrated in the former defence industries (so-called military & industrial complex). Its conversion to producing oil & gas equipment demands to find a solution of the following economic task: to ensure guaranteed return of investments into the manufacturing of equipment for the oil & gas industry, finally through the sales of hydrocarbons produced in oil & gas development projects where such equipment will be consumed. Hence the economic boom in the Russian former defence industry and other so-called non-raw-material-based industries is determined to a great extent by the scale and efficiency of investments into oil & gas projects.

2. Demand for investments in Russia's oil and gas projects

The demand for investments in Russia's energy in general and its oil & gas in particular may be assessed differently. According to some estimates made in the first half/middle of the 1990s (RF Government, World Bank, etc.), summarized in [3], it

is necessary to invest in the range from 3-6 to 15-20 billion US dollars per annum, mostly in the form of direct foreign investment, to overcome a decline in Russia's oil industry. According to the estimate made by the Ministry of Fuel and Energy in 1995, the investment requirements of Russia's oil industry range from 5-7 to 9-13 billion US dollars per annum. As estimated by the University of Houston Energy Institute in 1998 [4], the investment requirements of the Russian energy sector are 20 to 50 billion US dollars per annum, including 8 to 12 billion US dollars per annum for the & and gas sector.

All these figures have been arrived at through macroeconomic-level estimates. Estimates made at the microeconomic level provide even higher numbers.
In late 1996, the RF Government submitted to the RF State Duma a list of subsurface areas with respect to which the right of subsoil use can be granted on the basis of production sharing agreements. According to my estimate [5], the total requirements for investments in 213 objects mentioned in the list amount to 130-140 billion US dollars or 13-14 to 22-23 billion US dollars per annum (Table 1). This figure is nearly twice as large as the one for the investment requirements arrived at on the macroeconomic basis, and equals 1/5 to 1/3 of the level of investment in oil exploration and production made by international oil companies worldwide in 1996.
Thus despite the conclusion, made in the research of the World Energy Council (1995, 1997) [6,7] and reflected in today's paper presented by Dr. Klaus Brendow [8] and in the joint paper of the International Energy Agency and Secretariat of the European Energy Charter Conference [9], that the world's investment resources are sufficient for financing energy projects, it should be noted that competition in such investment will remain fairly keen especially in the foreseeable future since demand in a number of regions, say, in Russia may turn out much higher than the commonly accepted estimates.

Russia and the Middle East have a similar level of competitive demand for investment in the energy sector. In Saudi Arabia alone, the requirements for energy investments until the year 2020 are officially estimated at 135 billion US dollars, which is equal to the investment capacity of the list of subsurface areas to be developed in Russia under the production sharing terms. In terms of annual investment requirements, the figure for Saudi Arabia is 5.5 to 6.0 billion dollars, which exceeds the actual investment capacity of the Russia's PSA List Law No.1 (i.e. the RF Law that approved the first list of subsoil areas that might be developed under PSA terms, Table 1). The annual investment demand of the oil & gas sector in

the Middle East is about 20 billion US dollars, of which 50% must be met from foreign sources.

There is a new competitor - the Caspian region - in the struggle for investment in oil & gas, seeking aggressively access to traditional markets of the Middle East's and Russia's hydrocarbons. The current demand for investment in this region's oil & gas projects (incl. transportation) is already approaching 50 billion US dollars (5-8 billion US dollars per annum). The competition in investment among the oil-producing countries tends to be more keen. The one who provides the most favorable conditions for investors will be the winner.

3. Possibilities of providing demand for investments

Currently, the role of state investments into the Russian energy industry seems to be minor. Their volume has been decreasing throughout the 1990s, amounting to an equivalent of only about 250 million US dollars in 1997. There are limited opportunities for using state resources to secure non-state investment flows. The so-called *"development budget"* which was created in Russia for this particular purpose and was intended to support all branches of the national economy has reached slightly over three billion US dollars in 1997 (Table 1). Thus, the only source of investments in the Russian energy industry is private capital both of local and foreign origin.

Most investors operating in Russia are investors-speculators involved in investing into various segments of the financial tools market. This segment of the financial market offers to a potential investor a set of tools which provide an appropriate level of profitability, far exceeding the levels of the internal rate of return (IRR) of oil & gas investment projects. The capital intensity and pay-back periods regarding these two directions of investing also differs not in favor of energy projects. On the one hand, the IRR of investment projects amounts to 15-20 % and project life is 20-25 years or longer. On the other hand, in the early Spring'98 the profitability of three-four month government short-term bonds (GKO) (even taking into account a considerable decline of the level of profitability of financial tools which occurred in 1997) amounted to 22-25 %. The annual rate of return of long-term (more than a year) liabilities of the Russian Government has been exceeding 30 % with practically no risk related to this kind of financial investments. Other segments of

the market of financial tools are also of no lesser profitability. It is obvious where the money should be invested in under these conditions.
In late spring, when the post-effects of the Asian financial crisis has reached Russia (the non-residents began to take off their money from the Russian financial market), and the investment supply to finance the State internal debt has drastically decreased, the return on investments in GKO jumped to 60-80% and higher (i.e. at the end of May'98) thus decreasing further the stimuli to invest into long-term and capital-intensive investment projects.

I believe, however, there is not enough ground to state (as it has been proclaimed by the Government authorities throughout 1997) that having decreased the rate of return to 15-18% in the GKO market, the Government will manage to reallocate financial resources from speculative markets to the sector of material production because of the following factors :

- the market of financial tools and investments in the production sphere appear to be not only the different segments, but the types of the market (taking into account the time of transactions, their capital intensity, nature and nomenclature of risks). The investments in oil & gas projects are the longest-term, with the highest capital intensity, and are characterized by a wide range of risks (including those connected with Mother-nature-origin factors which do not exist in other segments of capital markets);
- different types of investors has been operating in these markets: stock exchange speculators and strategic investors. The former account for a highest rate of return within a short period of time and agree to high-level risks, the latter benefit by volume of profit, minimizing long-term risks and agreeing to a lower rate of return.

Thus, an actual divide lies not between local and international markets of capital but between markets of long-term investments in production of goods & services and the markets of financial tools (the more noticeable in the transition economies or emerging markets).

According to some estimates made by the major international rating agencies, Russia finds itself in the zone of *speculative* values of long-term hard-currency credit ratings, in the middle of the group of countries which are classified as *emerging markets* (Figure 2). If no particular favorable conditions for investments in the

production sphere are created, investors being squeezed from the GKO market, will continue to leave for:

- other segments of the Russian financial markets (hard-currency, inter-banking credits, promissory notes, municipal and other bonds, shares and other corporate securities, etc.) which at the given moment will appear to be more profitable than the GKO market,
- financial markets of other countries with higher ratings. That might create a situation when Russia, despite its own capital needs, will find itself in a position of net-exporter of capital since nowadays the level of capital outflow from the country is comparable with foreign investments inflow (Table 1), i.e. currently, foreign investments are just compensating for capital flight.

The current efforts of the RF Government and the Central Bank being directed at squeezing the financial capital from the market of financial tools apply to only one category of investors (speculators). The executive and legislative State powers, however, do not take appropriate action to simultaneously create attractive conditions for strategic investors involved in investment projects. It means that if there is no trend toward reducing a risk of financing long-term investment projects due to the lack of progress in the improvement of the corresponding legislation, which is supposed to be the legal basis for project financing, potential investors either will prefer to finance energy projects in other states which are Russia's competitors in the oil & gas market (in this case Russia will be losing the investors), or they will tend to first take a control over the companies involved in a particular project and only after that to participate in financing the project (in this case the pace of investment in Russia's "real" economy will drastically slow down).

The key element of the sound economic policy with regard to the oil & gas industry is the creation of the favorable investment climate, stimulating investors to invest production and financial capital in long-term and capital-intensive oil & gas projects.

The legislation should be *financiable* - capable to be financed, capable of creating certain conditions for financing projects. The major characteristics of such *favorable investment environment* and its *financiability* are rather well-known. They are as follows:

- the legislation should provide adequate stability;
- taxation system should be moderate and rational;

- the institutional framework should be transparent .

Only those factors taken together are able to provide the required stimuli for attracting investors to participate in the implementation of the project and to have members of the financial and banking community to finance this project. Hence, the proper legislative background should be created for *project financing*.

Taking into account the complicated (and in some cases - not transparent enough) financial status of many domestic Russian production companies (entities), the mechanism of *project financing* offers them a real and more attractive opportunity for organizing large-scale financing of oil & gas projects in contrast to *corporate financing*.

One of the first already taken steps to create such a legislative basis for project financing in Russian oil & gas is a PSA legislation (legislation about production-sharing agreements).

4. Two ways of improving investment attractiveness of Russia's oil & gas.

There has been two ways of improving investment attractiveness of Russia's oil & gas:

- to (further) improve the current licensing system of the use of underground resources;
- to create an alternative and competitive system of the use of underground resources (on the basis of production sharing agreements).

While working out the mechanism of production sharing as an alternative to the existing licensing regime, the authors of the new legislation had no intention to substitute production sharing agreements for licenses. The idea was to form two parallel and legally equal regimes of using underground resources (licensing and PSA) competing with each other for an investor. It would give birth to some additional stimuli for the improvement of each regime and eventually would lead to a prompt increase of investment attractiveness of Russia's mineral resources on the whole. It would also create preconditions for involving the financial and banking sector in financing projects in the sphere of production of goods & services in Russia's economy.

Thus, the key idea of the drafters of the PSA legislation was to make two investment regimes compete with each other, each of them being regulated by respective laws: the licensing regime should be governed by the Law *"On the Underground Resources"* and applicable tax legislation; the PSA regime should be governed by the Law *"On Production-Sharing Agreements"*. This approach coupled with the principle of project financing would define the areas of implementation of the two above-mentioned laws.

5. The first way: improving investment attractiveness of the existing licensing system of the subsoil use.

The licensing system of the subsoil use is based on the public law principles. In these conditions one of the major elements to enhance the legal stability during oil/gas projects implementation is prolongation of the period of various stabilization clauses in the applicable legislation. The currently acceptable by the State duration of such clauses in Russia is 3-5 years, which is considerably less compared to the term of oil/gas project implementation and even less than the calculated term of pay-back period for investment in such projects.

The idea to introduce into legislation the "license agreement" notion (i.e. an agreement between a state and investor within the framework of public law) which would allow to cover by stabilization clauses the whole duration of project was not supported neither by the deputies in the State Duma, nor by the oil companies. Moreover, oil companies perceived this idea as an attempt to have the obtained licenses reregistered and thus as the next round of administrative redistribution of already privatized property.

Creating of more favorable tax regime for existing licensing system is carried out by various ways. The major positive expectations are related with Tax Code adoption, which, compared to the applicable "prohibitory" tax system should bear – as was proclaimed by the Government - a lower fiscal burden on oil companies (due to a reduction of the number of taxes, a transition from a gross revenue-based to a net-profit-based taxation, etc.) However, in my opinion, adoption of the Tax Code in the existing version of articles 29, 36-38 (special taxes in oil/gas industry) would not resolve the problems of creating a favorable tax regime, which would stimulate investors to finance oil & gas projects.

During Tax Code preparation the pro-investment model of oil companies taxation, the so-called *"super-income tax"* (SIT), was proposed as an alternative to the Government's concept of oil companies taxation model, the so-called *"additional income tax"* (AIT). The latter is presented in the draft Tax Code approved by the State Duma in its first hearing.

With the SIT model submitted by a group of the State Duma consultants headed by the author of this report, the progressive SIT rate sliding scale should have started at some "boundary" value of minimum IRR (or with so-called R-factor considerably bigger than 1.0 - for example – at 1.25 level - see Figure 3), ensuring that oil companies have a guaranteed profit, sufficient for reasonable return on investments, including repayment for borrowings with adequate to Russia's conditions investment risks compensation.

But a search for the optimum taxation model was finally carried out by the Government and the State Duma in the "fiscal scenarios" area. The SIT model was not supported by oil companies either, apparently due to a radical nature of the idea proposed. The AIT model was selected as a basic one for the special section of Tax Code (oil companies taxation).

The development of a concept of the so-called *"additional income tax"* (AIT) started with the version under which its application was initiated in the area of the negative discounted cash flow (DCF) with a steeply progressing sliding-scale rates of this tax. The initial AIT model submitted by the Government (the Ministry of Finance) and the Independent Fuel and Energy Institute envisaged the start of AIT application at R-factor equal to 0.7 (70% cost-stop) and a very steep progressive AIT rate scale (Figure 3).

Later the AIT concept was adjusted in line with a trade-off version, which provides for a less steep AIT rate sliding-scale. Under this "compromise" scenario implementation of AIT begins with the R-factor equal to 1.0, i.e. at DCF equal to zero (Figure 3).

Conclusion: Within the framework of public law the opportunities for enhancing the legal stability are limited and exist only at the initial phase of project implementation. The existing tax system even being replaced by the Tax Code will remain to be fiscally oriented.

6. The second way: creation of an alternative system of the subsoil use on the basis of the PSA mechanism.

The legal basis for the Russian PSA model is the civil law under which the State and an investor are equal parties of the contractual relations. Such an approach provides wider opportunities to find an economically based trade-off and a balance of interests between the host government and an investor. The contract law provides for the opportunity to resolve the problem of agreement's stability for the whole term of the project implementation and has more effective mechanisms of dispute settlement, including international arbitration, etc.

The economic rent collection system is provided within PSA. It is strictly individual for each particular project and is usually linked to the project profitability level through the sliding scale government take's rates.

The acceptable level of the internal rate of return (IRR) for direct investments in energy projects in the Middle East, which covers the existing political and economic risks in the region, is nor less than 20% a year in real terms. At the same time in today's Russia the acceptable (permissible) to the State basic level of IRR for PSA projects is equal to approximately 15-18% (provided there is a sliding scale for profit oil sharing in case the basic IRR values have been exceeded).

The Middle East countries, ensuring such IRR level, would attract the increasing share of the world's non-governmental financial resources and would route towards themselves the investment flows, which otherwise might be directed to some other countries, including Russia's energy industries. The only alternative to such a scenario is an accelerated development and improvement of PSA legislation and beginning of its large-scale implementation (today only three PSAs are signed in Russia's oil & gas), which would result in further considerable reduction of risks of project financing in Russia's mineral industries. Only in this case the international financial and banking community would prefer not only to invest in other countries, but also to ensure project financing in Russia's energy.

Conclusion: There are wider opportunities for enhancing contract legal stability within the framework of the civil law (contractual law) - for the whole term of project implementation. Based on economic rent collection principles system of payments and their negotiable values make it possible to find their optimum values

and means of changing them. The PSA legislation has been creating the legal basis for project financing of Russia's oil & gas.

Further improvement of PSA legislation should be focused on improvement of its financiability (ability to be financed), which should incorporate in the PSA Law and associated legal documents the norms reflecting the balance of interests not only of the State (represented by the Federal and regional authorities) and an investor, as the contracting parties to PSA, but also of all the members of the project financing, i.e. allied industries without which no PSA project could be implemented. I mean mainly the financial and banking community (to decrease the risks of borrowing necessary funds) and equipment manufacturers since the state policy should stimulate the competitive level of domestic manufacturing industries and related services.

7. The competitive areas of licensing and PSA system's application.

It is known that considerable changes were incorporated into the initial version of the PSA Law. This resulted in the extremely bureaucratic procedures of PSA implementation. Finally, the cost of reaching the optimum sharing of produced oil (the result of too complicated procedure of PSA preparation, signing and implementation) in some cases could exceed the investor's expenses of working under non-optimum tax system for this same particular project within the framework of the existing licensing system.

Non-equal competition of these two investment regimes was formed, under which the PSA "survival bar" at the federal level was set up very high and focused mainly on large projects.

However, in the course of time an opportunity could appear for a great number of small fields, being placed within jurisdiction of local authorities, to be developed on PSA terms, without the excessive complexity of the subsoil access procedure. In this case a group of small fields might be grouped together into one PSA project (to improve their economics) through more simple bureaucratic procedures than those existed at a Federal level.

Therefore, gradually only very big and very small fields would be primarily developed on PSA terms (Figure 4). Medium-size fields could be developed mainly on the basis of the licensing system. The comparable rate of improvements of each

of these investment regimes would define the area of their application in subsoil use and, therefore, further improvement of financing terms in the oil/gas industry in Russia.

Figure 1

IMPACT OF PSA ON THE ECONOMICS OF THE RUSSIAN FEDERATION

(A) Russia and Other Countries: Multiplier Values

Norway	1.6 - 1.7
Australia	1.8 - 2.4
RUSSIA	1.9*
USA	2.1

As calculated by Committee on Natural Resources, Russian Academy of Sciences, and Petroleum Advisory Forum

*Note: for 6 PSA projects

(B) Russia: Multiplier Structure

PSA INFLUENCE ON THE RUSSIAN ECONOMY

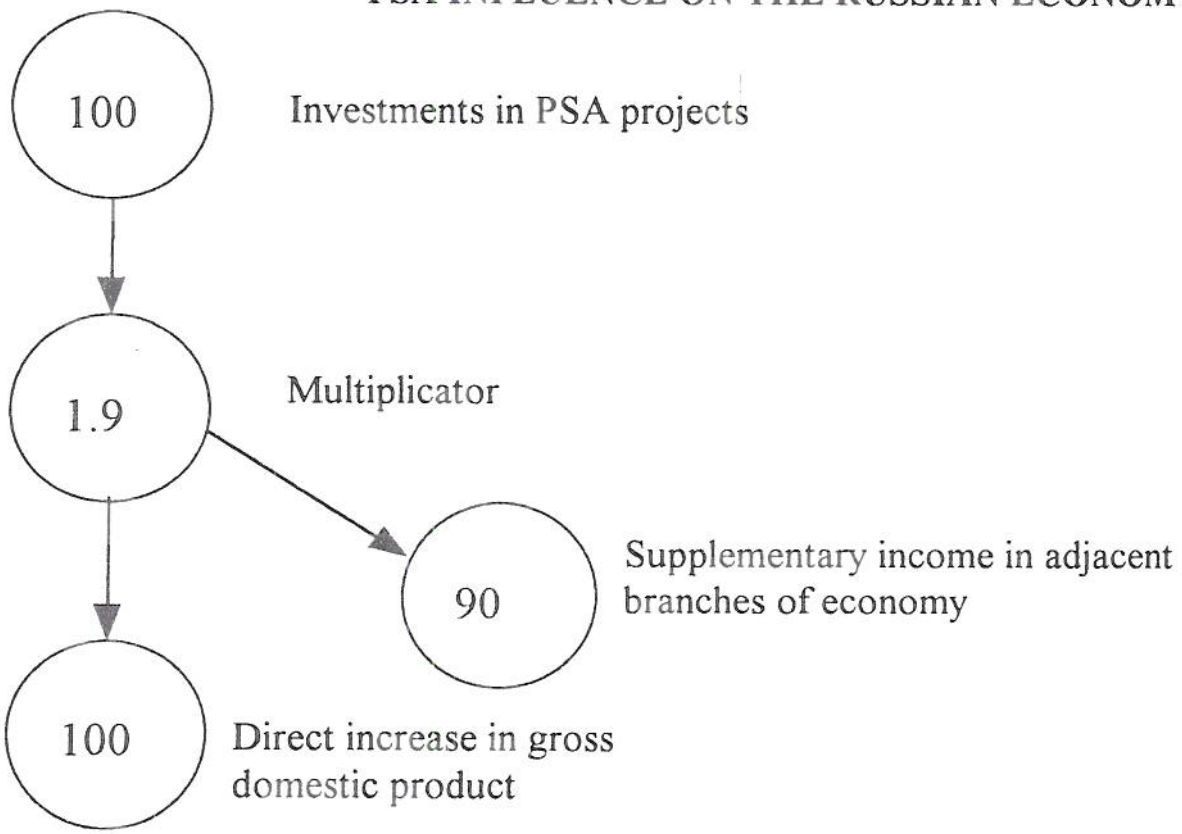

Table 1

DEMAND FOR INVESTMENT IN RUSSIA'S PSA PROJECTS AS COMPARED TO THE EXISTING INVESTMENT SUPPLY

	billion US$ per annum
Investment Demand (PSA)	
• The list of subsurface areas:	
◦ Future List	13/14 - 22/23
◦ Current List	6/7-10/11
• List Law #1	3-5
• Draft List Law #2	2-3
Competitive Investment Demand	
Middle East (oil/gas)	~20
Saudi Arabia (all energy industries)	5-6
Caspian region (oil/gas)	5-8
Investment Supply	
RF Budget (1997):	
• investments in all energy industries	0.25
• "development budget"	3.2
• internal debt servicing	6.5
Foreign investments: 1996	2.0 + 1.5 = 3.5
1997	6.5 + 4.0 = 10.5
For Comparison:	
Capital outflow from Russia (1996, estimated)	10 (7 - 13)
Foreign oil companies' investment in exploration and production (1996, world-wide, estimated)	70 - 80

Figure 2

LONG-TERM CREDIT RATINGS FOR RUSSIA AS ESTIMATED BY MAJOR INTERNATIONAL RATING AGENCIES

(a) Russia's position on the rating scale

	USA		Europe
	Moody's	Standard&Poor's	Fitch-IBCA
Investment rating categories	A1 A2 A3 Baa1 Baa2 Baa3	A+ A A- BBB+ BBB BBB-	A+ A A- BBB+ BBB BBB-
Speculative rating categories	Ba1 Ba2 (Russia)(*) **Ba3 (RUSSIA)(**)** B1 B2 B3	BB+ BB **BB- (RUSSIA)** B+ B B-	**BB+ (RUSSIA)** BB BB- B+ B B-

(*) pre-March'98 rating

(**) post-March'98 rating

(b) Russia's rating as compared to some other emerging markets

Country	Moody's	Standard&Poor's	Fitch-IBCA
China	A3	BBB+	-
Malaysia	A2	A	-
India	Baa3	BB+	-
Thailand	Ba1	BBB-	-
Philippines	Ba1	BB+	-
South Korea	Ba1	B+	B-
RUSSIA	***Ba2 (Ba3)***	***BB-***	***BB+***
Mexico	Ba2	BB	BB
Argentina	Ba3	BB	BB
Brazil	B1	BB-	B+
Turkey	B1	B	B+
Indonesia	B2	BB	B+

Compiled usind data provided by "Kommersant – Vlast", No 2 (254), 27.01.98, p. 50-51.

Figure 3

TAX CODE: THE SEARCH FOR OPTIMUM TAXATION MODEL FOR OIL AND GAS INDUSTRY IS CARRIED OUT IN THE FISCAL OPTION ZONE

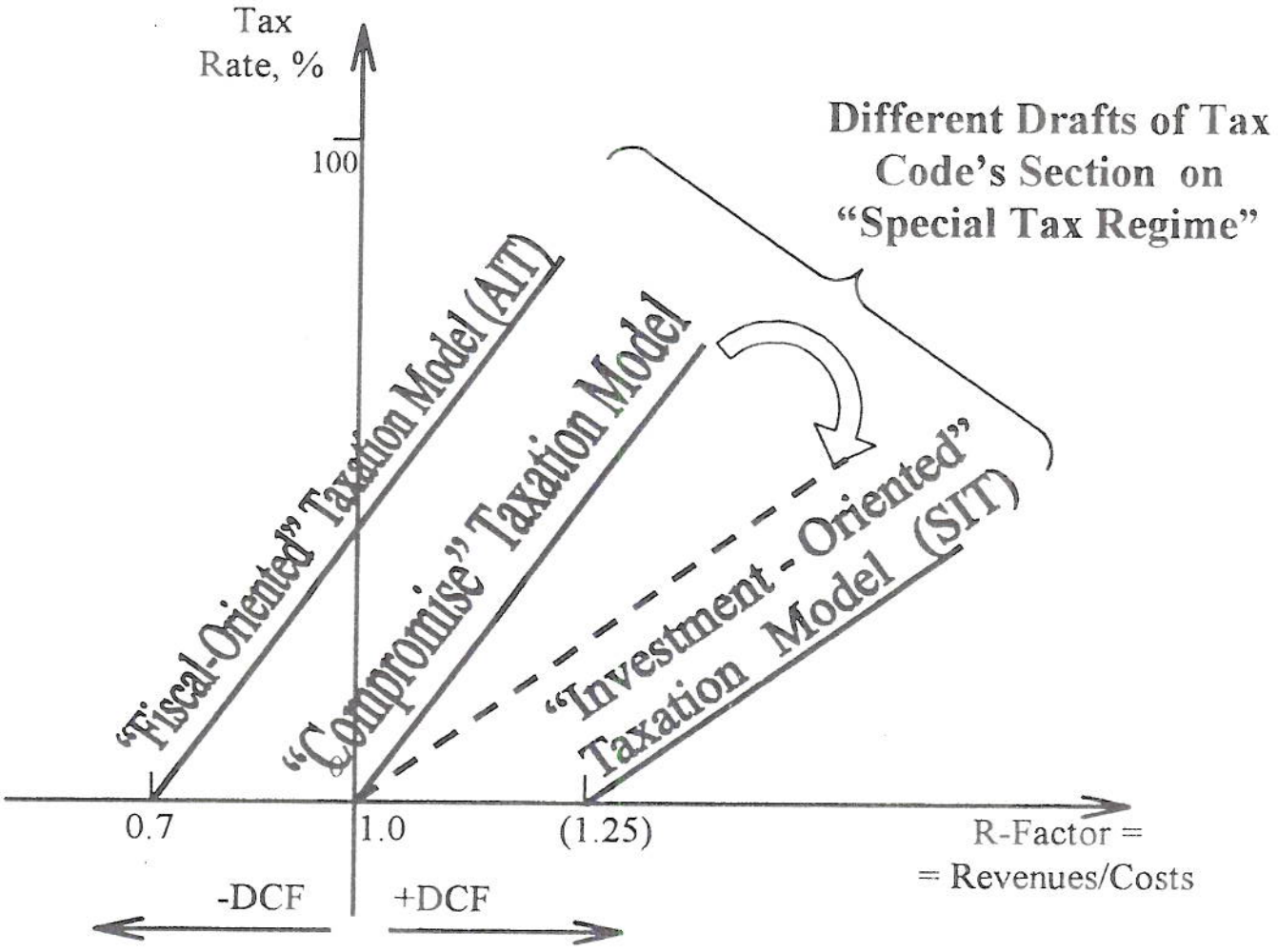

Figure 4

PROJECTED ZONE OF ACTUAL APPLICATION OF PSA LAW