# NATURAL RESOURCES TAXATION IN BRAZIL: AN EXAMPLE OF PETROLEUM AND NATURAL GAS

By

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November, 2002

INTRODUCTION

This article deals with the taxation of natural resources in Brazil in general and on oil and natural gas in particular. The monopolistic position exerted by the Brazilian National Oil Company – PETROBRAS, was recently changed by the Law nº 9.478, of 6th August, 1997. The royalties paid by the Company, resulting from the right of exploiting oil and gas on the domestic sedimentary basins, do not seem sufficiently transparent. By analyzing the *petroleum account,* it can be observed a very peculiar fact – the oil domestically produced do have its value *predicted* on the basis of the imported oil, and not as a result from the cost account scrutinized at each domestic oil well – this point will be discussed later on within this paper.

Late the change of the PETROBRAS monopolistic position came out with the new Constitution voted in 1988, a kind of monetary indemnification – *Financial Compensation* – due by the State owned and Private Companies to the Federal Government, to compensate for the exclusive right of exploiting the whole array of Natural Resources, excepting the *radioactive minerals.* Former to the *Financial Compensation* introduction, the whole set of non-renewable natural resources were taxed through a *single tax* – a kind of royalty ad valoren. The early mentioned Constitution voted in 1988, bring natural resources taxation to the *VAT* environment, domestically called *ICMS – Taxation on the Consumption of Goods and Services,* which is based on the *Value Added* Principle.

At last, it is important to call the attention of the *Financial Compensation's* benefiting States to carry out a close observation on the *royalties* paid by *PETROBRAS*, for the simple reason it is not a windfall profit, but a compensation for the right of exploiting a very special kind of *resource*, which will be exhausted in the long run.

## OUTLINE OF THE TAXATION SYSTEM IN BRAZIL

The *taxation system* in Brazil is usually defined as a set of principles harmoniously integrated on the whole, so that it can be seen as an ethical code formally arranged, sensible and rational.

This sentiment leads to the understanding that the whole system is translated into a series of beliefs, which settle a frame of doctrines providing the ordering among different elements that sanction the orderly functioning of the social and economic structure. Therefore, whenever the taxation system is mentioned, it is intended to refer to a harmonious set of principles on which the taxation is based, as well as the method which operates these principles.

From the mentioned points of view, it can be said that the tax system in Brazil is historically roughly systematic. For a taxation system to have a rational nature, the fiscal prerequisites which are expressed by law, must be organized as a whole, so that the emergence of potential conflicts can be thoroughly solved within the tax system domain.

The point now to stress is that the *tax system* came out to be a set of fiscal obligations, divided into four groups, taking into account their economic activity nature. a) The *external trade taxes***,** which include the taxation on imports and exports of goods and services; b) The *property and rent taxes***,** comprising the taxation over payment, the extent of which includes the *income tax, agrarian property tax, tax on building properties and urban areas***,** as well as the *tax on trading properties* and the rights related to them; c) The *taxes on product, production and trade***,** encompassing the *IPI (Industrialized Products Tax),* the *ICMS* - earlier defined, and the taxation over credit, exchange, stock market and monetary claim operations; taxation covering all these operations is restricted to the *IOF (Financial Operation Tax)* and the *ISS***,** which includes the taxation over *services*. The *single tax* group, including the levies on production, import, delivery and consumption of liquid or gaseous fuels, taxation on electricity consumption, and charges on extraction, transportation either/or the consumption of domestically produced minerals, fall within the *VAT* taxation domain, domestically called *ICMS*, as early explained, plus the new introduced *Financial Compensation*.

The *ICMS* used to be excised over exports only excluding industrialized mineral derived products. All over the world where VAT taxation principles prevail, the *tax* is not charged over exports in general and this course of action has only recently been adopted in Brazil. As an old English saying goes, it does not seem reasonable to export taxes. The *ICMS* usually excised over exported minerals, was finally aborted by the *Federal Law* 87/96 which became nationally known as the Kandir Law, named after a member of the Parliament who supported its proposition.

As far as the *VAT* taxation system is concerned**,** *tax* credit is allowed in the event where the input directly utilized in the industrial process is physically consumed in producing the output or, the other way round, it is integrated to the final product as an essential element to the final product output. The reading of this aspect from a pure physical point of view, without taking into account any economic consideration, turned out to be a very controversial matter.

From an unbigoted standpoint, an input does not need to be either a physical part of an output or a vital part of it to be added in terms of value. The electricity power in the aluminum industry seems to be a very persuasive example on this matter. In instances where the economic aggregation takes place without the physical addition, if the tax credit charged over the utilized input - this being computed only in terms of value but not in physical terms - is not accounted, this can be said of as a cumulative tax charge which clashes frontally with the constitutional provision setting the limits to ICMS.

In addition to ICMS, which came to replace the *single taxes* earlier defined, it was also created the *Financial Compensation* related to the exploitation of the whole array of *Natural Resources*, as previously discussed in the ***introductory*** section. A monetary indemnification of this kind does not seem too distant of a classical cumulative tax charge.

It is beyond the scope of the present article to discuss how legitimate the *Financial Compensation* ***is***. On the other hand, being considered as a *compensation* for the exploitation of a set of non-renewable natural resources, the same can be taken as one more *fiscal obligation*, to be added up to the already significant amount of taxes

being charged over the Brazilian productive sector, which seems to exceed the average tax burden of the developed world countries.

## THE PETROLEUM NATIONAL ACCOUNT AND THE DOMESTIC OIL PRICE

In principle, the main difference between a market economy and a mix of a centrally planned one can be noted by way of a price system: competitive prices means an open economy and price administration typifies an economy under continuous government intervention.

Brazil, in recent times, has been advancing toward a market price system. In spite of that, the price administration system is still present, strikingly in the public service tariffs – which should not be confused with State services -, and also with the price formation of crude oil dependent products.

The oil products' price structure in Brazil can be said to result from a State owned Company – *PETROBRAS* – price administration, operating a market of some US$ billions. Being a critical energy factor, these products play a significant role in the overall Economy cost system and, therefore over each and every economic sector. To illustrate the burden on the balance of trade resulting from the imported crude, it's worth mention that Brazil imports 40% of its daily consumption of 1.8 million barrels. According to *Betting, J.* – the Folha de São Paulo Newspaper celebrated Economic Annalist - *PETROBRAS* is making projections of US$ 24.30 per barrel of imported crude for 2001. It does not seems to be a down-to-earth prediction – the crude, *Brent* type, was sold in the London spot market by US$ 33.00 by September 2000 and the market for oil is still far from a stable position..

From this all, it seems quite understandable the massive social commotion in understanding and play some role over this price mechanism. Meanwhile, the most frequent allusion heard among scholars, professional reports, congressmen more kin of with economic affair and the high State bureaucracy, is that the entire system is quite similar to a *black box,* openly linked to another one called *Petroleum Account.*

The question now is: how much does a barrel of crude oil produced in the different domestic sedimentary basins cost? It does not seems an easy question to be answered, since it is a entirely *Predicted Price,* figured out on the basis of projections of the international oil price, taking into account the need of future domestic oil imports. Some more points need to be clarified. The *Structure CIF Cost* is the value per barrel applied to the total volume of crude oil delivered to the refineries when, in principle, it should represent the average price between imported oil and the price per barrel of the domestically produced oil - in Dollar terms - weighted by each volume transferred to the refineries, during a certain period of time.

Notwithstanding this, in the absence of a competitive market, there is not properly a price for the national crude. Therefore, the *Structure CIF Cost* is a *PETROBRAS'* proposed value, sanctioned by the newly instituted *National Oil Agency – ANP,* a branch of the *Ministry of Mines and Energy – MME,* by using as a parameter a *CIF Cost Estimation* of the crude which will be imported. In fact, the *CIF Cost Estimation* should be more properly labeled *FOB Price Estimation,* added to the shipment paid by *PETROBRAS* to its own oil cargo company – *FRONAPE.* Actually, the *CIF Cost* should be called *Price Cost & Freight – Price C&F,* since *PETROBRAS* made the option for not include *Insurance* in the price formation. It is an ordinary procedure within the *ANP* to fix the *Structure CIF Cost* somehow below the *CIF Cost* predicted for the imported oil.

Even though *PETROBRAS*' internal laws do not mention the *Predicted Price,* the domestic crude stems from the following formula:

FORMULA A - *PREDICTED PRICE EVALUATION*

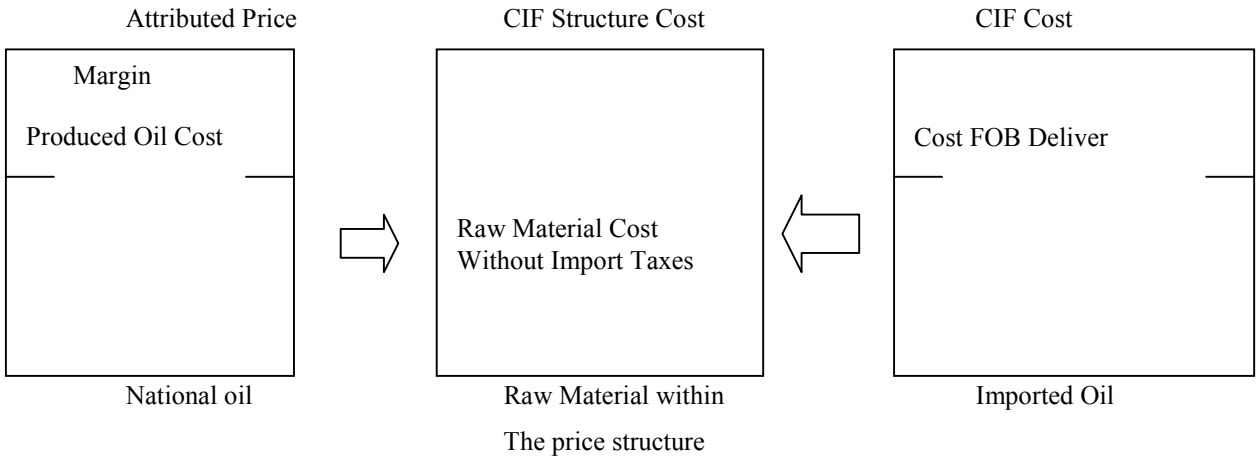
*(1) Predicted Price*
*(2) Structure CIF Cost X Total Oil Volume*
*(3) CIF Cost X Imported Oil Volume*
(4) *Domestic Oil Volume*

Predicted Price = (Structure CIF Cost X Total Oil Volume) – (CIF Cost X Imported Oil Volume)

(Domestic Oil Volume)

Or simply, *Predicted Price* = 2 – 3 / 4

FIGURE B - STRUCTURE *CIF COST EVALUATION*




Source: Industrial Analysis, Year 1º, Nº 3, 1994, Industrial Federation of Sao Paulo, SP, Brazil, P. 13.

As it can be easily noted, there is a considerable discretionary margin in fixing the *Structure Fix Cost,* this meaning the price of crude oil – without import taxes – delivered to the refineries, and also in relation to the compensation proceedings once the import operations are concluded. There is neither a formal nor a legal *Predicted Price* to the domestically produced oil. If the account endowment allocated to the *Unification Shipment Fund - FUP,* a reimbursement account under *PETROBRAS*' administration be sufficient, the *Predicted Price* is simply rejected and its place is taken by the Structure CIF *Cost,* which turns out to be the accepted price for the national crude.

How about having a look on the other side of the same coin? I the *FUP* available endowment is not sufficient, the *Predicted Price* is used to define the value of domestic oil, after deduction from the total amount received via *FUP,* related to the value paid for the total imported oil. The difference between *attributed Price and Structure CIF Cost* will be reflected as a deficit in the *Petroleum National Account.* In practical terms, since it is allowed the *Petroleum Account* to show negative balances, accounted by *PETROBRAS* as liabilities to receive from the *National Oil Agency – ANP,* all of this produces a quite bizarre final result: the value of the *National Crude* is eventually equal to the *Structure CIF Cost* – see Formula A.

To be true, there is a great conventional approach inside the present methodology, being customary the following praxes: Bigger differences registered between Structure *CIF Cost* initially prevalent and the *Average CIF Cost* effectively paid by *PETROBRAS* is compensated by *FUP* hard cash up to the availability limit of this fund. The balance requiring compensation is registered and monetarily corrected within the *National Petroleum Account.* Accordingly, not even a miracle should consent the Brazilian Oil Company – *PETROBRAS* – to operate "in the red ".

As earlier pointed out, more than a *black box* waiting for someone to find its opening secret, the price system of the Brazilian oil products continues to be a tremendous cobweb of rules, discipline, administrative and bureaucratic regulations, now under the *ANP* legal management and, barely autonomous within the Company environment. Even though the main goal of this article is to highlight the *Financial Compensation* contour in relation to the *Price Formation* of the domestic crude, the tangential approach also carried out over the *Petroleum National Account* seems worthwhile, inasmuch as they are part of our daily economic reality.

# FINAL CONSIDERATIONS

The amount of money related to the *Financial Compensation* paid by *PETROBRAS* for the exclusive right of exploiting crude oil and natural gas is of significant importance to the budget of any producing State. However it does not seem to be sensible to think up this money as a windfall profit, for it is a receipt to compensate for the reduction of a natural resource asset - the oil wells will run out anyway in the long term.

The taxes paid by *PETROBRAS* for the exploitation of oil, natural gas and shale oil, up to 6th August, 2.000, as stated by section 48, Law nº 9.478 - *5% royalties* - are themselves unexpressive. In *USA* they go from 12, 5% to 20%. In Egypt they reach 89%. The Brazilian State Company pays 5%, and only for the oil exploited from the continental shelf. The *royalties* paid by the crude oil and natural gas produced offshore are transferred to final consumers via price structure.

Before the Law 9.478's edit, on the 6th of August, 1997, according to the Constitution, the monopoly used to belong to the Union, but in practical terms it was incorporated into the *PETROBRAS,* and it will be kept virtually the same up to the 6th of August, 2.000.

There are within Brazil 32 sedimentary basins, but only 8 are under exploitation. It seems to be the appropriate time to open *Concession Contracts* to those in condition of assuming the risk of exploration, the most capital intensive part of a mining venture. Also, the opening of Concession *Contracts* for import, transport and refining of crude oil should provide a measure of competition to the former *PETROBRAS'* monopoly, which demonstrate uselessness in providing the Country's self-sufficiency in terms of oil.

Within a market economy approach and making an attempt to strengthen the Federation system, it is important for the States and Municipalities to have a close look on the way the *Financial Compensation* is being figured out by the former State Oil Company.

It is known that fiscal evasion is great within the country. On the other hand, by irony, the private oligopolies and State monopolies are the major tax payers. As companies that play a major role in the market, it is easier to transfer the tax burden

included in the final price of good and services to the final consumers and, in the due time, to the National Treasure. Nevertheless, it is wise to be a bit more watchful.

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