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**Update of the Handbook on Selected Issues for Taxation of the Extractive Industries by Developing Countries**

**Chapter XX: Production Sharing Contracts**

**Note by the Secretariat**

*Summary*

This chapter examines the concept and some of the mechanisms of Production Sharing Contracts or Agreements (PSC or PSA) in detail. PSCs are among the most common types of contractual arrangements for petroleum Exploration and Production (E&P).

PSCs typically relate to the petroleum industry and are rarely seen in the mining industry. This is largely related to the fact that direct participation of government bodies in mining is not as common as in the oil and gas industry. However, some countries, have recently explored the possibility of PSCs in the mining sector. PSCs are used worldwide, and most common in African and Asian countries, as well as in certain countries of South America.

The chapter starts by considering how a PSC differs from other types of fiscal regimes; it explores some of the reasons why and when a country would choose a PSC driven fiscal regime. It provides an overview of general terms and common tax clauses as well. The description for advantages and disadvantages for PSCs in many sections comes across as a probusiness assertion and appears to be one-sided. The Subcommittee is aware of that but found the chapter as whole substantive enough to be presented to the Committee for DISCUSSION and comments. The paragraphs that need further work in that respect are in grey color. With the Committee's comments and guidance, the Subcommittee will redraft parts of the chapter to make it more balanced and submit it for approval at the 21st Session.

The Committee Members are also invited to provide us with examples they may have on PSCs in mining industries.

**CHAPTER X: PRODUCTION SHARING CONTRACTS**

# Index

## 1. Executive summary

The aim of this chapter is to describe the main tax and tax-related issues arising from upstream production sharing contracts.

For this purpose, this chapter examines the concept and some of the mechanisms of Production Sharing Contracts or Agreements (PSC or PSA) in detail. PSCs are among the most common types of contractual arrangements for petroleum Exploration and Production (E&P). Under a PSC, the state as the owner of mineral resources, engages an oil company or a group of oil companies as a contractor to invest their technical and financial capabilities to explore and develop the country's hydrocarbon resources. The state is traditionally represented by the host government or one of its entities such as the national oil company (NOC).

A PSC is, therefore, a type of contract signed between a government entity or entities and a company or companies involved in natural resource exploration and production, intended to establish the rights and obligations of the parties, including how the costs incurred for and revenue generated by the project will be allocated among the parties. PSCs typically relate to the petroleum industry and are rarely seen in the mining industry. This is largely related to the fact that direct participation of government bodies in mining is not as common as in the oil and gas industry. However, some countries, e.g. Senegal and Egypt, have recently explored the possibility of PSCs in the mining sector. PSCs are widely used worldwide, and most common in African and Asian countries, as well as in certain countries of South America.

There is no uniform approach or standard model to a PSC. Features from other petroleum fiscal regimes like the concessionary system[1] can generally be found in PSCs. PSCs may also cater for how the contract terms interact with general tax or other legislation. It is also common for different versions of a PSC to be used for different areas of production within the same jurisdiction.

To provide a general overview of PSCs, the chapter starts by considering how a PSC differs from other types of fiscal regimes; it explores some of the reasons why and when a country would choose a PSC driven fiscal regime as well as provide an overview of general terms and common tax clauses. When discussing terms, the chapter goes into a number of practical tax problems that are common in the interaction with PSCs and finally describes a number of current PSC systems around the world.

This chapter intends to improve understanding as to what PSCs are, including relevant terminology, what the tax mechanisms of the contracts are and what areas of attention are when applying a PSC. It intends to discuss aspects of interest to tax administration, investors and other stakeholders.

[1] See Chapter 7: The Government´s Fiscal Take.

## 2. Acronyms and term used

**[The handbook already has a definition of most of the terms originally included (e.g. profit oil, joint venture or consortium, etc.). The terms below will need to be added to the overall list of acronyms to complete the relevant terms already included in the Fiscal Take and other chapters]**

**DD&A**: Depreciation, depletion, and amortization.

**FDP:** Field Development Plan include activities and processes required to optimally develop a natural resources field.

**Government Share:** The total amount of direct revenue that a host government receives from the project. This amount can include taxes, royalties, bonuses, share of profit hydrocarbons and government participation, and is generally expressed as a percentage of divisible income generated by the project.

**Netback:** benchmark used in the oil and gas industry to assess the profitability and efficiency of a project based on the price, production, transportation, and selling of the hydrocarbon volumes produced. Netback is calculated by taking the revenues from the oil, less all costs associated with getting the oil to a market, including transportation, royalties, and production costs.

**Relinquishment:** The return of part or all of a lease or concession geographical area to a lessor, farmor or host government. The return may be voluntary or compelled contractually or by law.

**Surface fee:** Regular fee paid to the host government from the use of a piece of land or surface (e.g. area of a block or field).

**Sliding scales:** A mechanism with a more flexible share scale of fees, taxes, wages, etc. that varies in accordance with the variation of a particular standard or parameters.

## 3. Production Sharing Contracts – one form of Fiscal System

### A. PSCs in the Oil and Gas Industries

Chapter 7 - Fiscal Take - provides a general overview of fiscal instruments – including PSC -, their features and their characteristics. Whereas that chapter covers fundamentals of PSCs, this Chapter provides a more in-depth review of PSC related features and issues.

Fiscal arrangements between Governments and Oil & Gas (O&G) companies normally fall in one of two main systems: concessionary and contractual.

The main difference between them generally lies in their approach towards ownership of the resources[2].

In most countries, natural resources belong to the government, as normally provided in their Constitution. They generally remain so at least until resources are lifted. A most notable exception to this rule is the United States of America, where subsoil resources belong to the owner of the surface.

In general, under the concessionary system, the O&G company has title to the hydrocarbon produced while in the contractual system, the government retains title to the resources[3], however mixed systems (systems that share features of both cases) may apply[4].

In turn, contractual arrangements are divided into service contracts and PSCs. The main difference between services and production sharing contracts relates to the fact that for service contracts, the O&G company(ies) typically receive a fixed compensation from the government, and for PSCs they receive a share of production[5]. Therefore, PSCs usually allocate more risk (and a higher reward in case of success) to the investing parties, whereas service agreements allocate less risk (and a lower reward) to the investing parties.

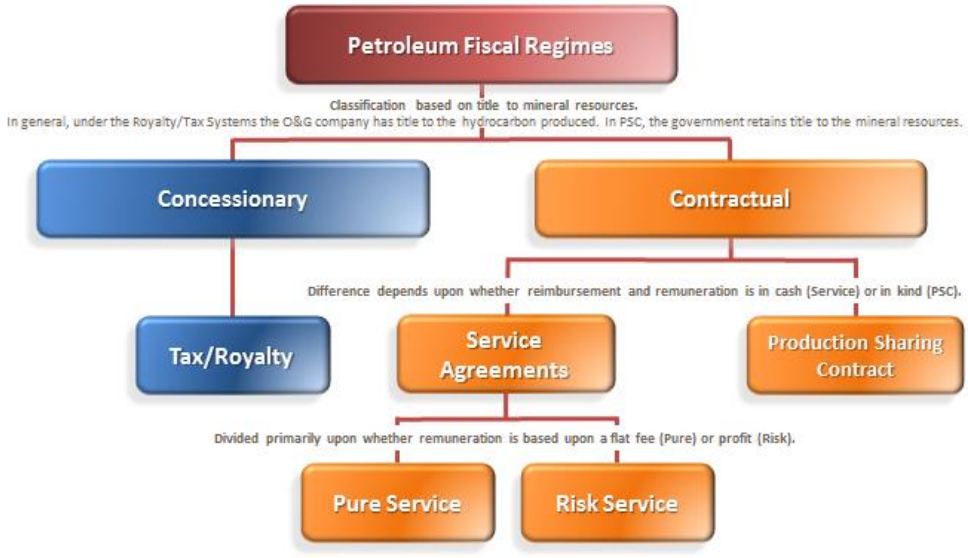
In PSCs, as in a concessionary system, the contractor or contractor group carries the entire exploration risk. If no economically viable oil or gas is found the company receives no compensation. However, under PSCs the government owns the resource and ultimately owns the petroleum installations.

[2] Daniel Johnston, International Exploration Economics, Risk, and Contract Analysis, PennWell , 2003, pp. 12-13.

[3] Another aspect regarding ownership relates to equipment, as typically under contractual systems, once production equipment or facilities are landed in the host country, title to the equipment passes to the host government. Nevertheless, this does not apply to leased equipment or equipment brought in by service companies. Daniel Johnston, International Exploration Economics, Risk, and Contract Analysis, PennWell , 2003, pp. 12-13.

[4] For example, in Brazil, under both systems the ownership of natural resources belongs to the government until sometime after production.

[5] Ib. P. 13. See also Carole Nakhle Mining and Petroleum Taxation: Principles and Practices, Revenue mobilization and Development IMF, DC, 2011.




**[NOTE: Map originally included has been removed because outdated. Some mapping has been included in Fiscal Take and most maps are out of date by the time of print].**

The first PSC was signed by IIAPCO in August 1966, with Permina, the Indonesian National Oil Company at the time (now Pertamina) [6].

**Basic features of the first PSC contract:**

- Title to the hydrocarbons remained with the state.
- The National Oil Company maintained management control, and the contractor was responsible for execution of petroleum operations in accordance with the terms of the contract.
- The contractor was required to submit annual work programs and budgets for scrutiny and approval by NOC
- The contract was based on production sharing and not a profit-sharing basis.
- The contractor provided all financing and technology required for the operations and bore the risks.
- During the term of contract, after allowance for up to a maximum % of annual oil production for recovery of costs, the remaining production was shared x/x % with the National Oil Company [NOC]. The contractor's taxes were paid out of NOC's share of profit oil.
- A notable simplification feature: tax was calculated using audited Profit Oil as taxable income, with only minor adjustments; the ordinary rules for calculating taxable income did not apply.
- All equipment purchased and imported into the country by the contractor became the property of NOC. Service company equipment and leased equipment were exempt.

[6] Daniel Johnston, International Petroleum Fiscal Systems and Production Sharing Contracts, (PennWell Books, Tulsa, Oklahoma,1994). Page 40.

**B. PSCs in the Mining Industry**

Whilst it would be possible for PCSs to be applied to mining projects and some countries include the potential for them in their legislative framework, in practice they are rare. One reason for this is that PCSs tend to set annual limits on the amount of production that can be allocated to recover costs. The underlying assumption – that there is a sufficient predictable margin for allocation between the contractor company and the government – does not hold for the mining industry. This can be due to high up-front costs for mining projects, and significant changes in the annual capital and operating cost throughout the life of mine. For example, towards the end of the mine life, resources become less accessible and more difficult to extract, so costs can increase substantially. These factors therefore make it more difficult to agree, 'profit commodity' (equivalent of profit oil) and cost recovery terms up-front.

Another limitation lies with the marketability of mineral products. As discussed in this chapter a key feature of PCS is that the government retains the right to at least a proportion of the physical output. Production sharing therefore requires that governments can quite easily sell products domestically or on the international market. For mineral products, such marketing is more difficult, and companies tend to assume responsibility for marketing all of the mine output because they have the relevant technical expertise.

Generally, concession (tax/royalty) regimes are the norm for mining projects. While in developed countries the fiscal terms applicable to mining investments are usually legislated unilaterally, in many developing countries, where robust legislation has sometimes not been developed, terms are typically set out in project-specific negotiating mining agreements. Like PSCs, project specific arrangements can provide governments with the flexibility to take account of particular geographical and other local circumstances. From the company's perspective, they are viewed as an important source of stability and predictability of the fiscal regime. Similar to PSCs, transparency remains important and it can be beneficial for governments and investors that specific agreements are approved by the parliament, so they are subject to adequate review. In addition, under the EITI Standard, implementing countries are required to disclose all contracts that are granted, entered into or amended from 1 January 2021. Implementing countries are encouraged to publicly disclose any contracts and licenses that provided the terms attached to the exploration of oil, gas and minerals[7].

Similar to the oil and gas industry, government participation in the form of equity is fairly common and may be covered by a project specific agreement – so that in addition to taxes and royalties, the government is able to receive a share of profits from the project. This however requires the government to pay for their equity share, and fund their share of capital, by way of a carried interest This means that it is initially funded by the private investor and repaid by the government, with interest, out of profits from the project. This means that government revenues form equity investments in mining projects may not be received for many years after the start of production (after carried interest have been fully repaid). In addition, where governments hold an equity interest in mining projects, this can expose developing country governments to the same level of risks as private investors as well as significant debts. Revenue would however flow to the government in the form of royalties (on gross sales revenue) and corporate taxes (once tax losses are utilized) and other taxes such as taxes on employment. Government objectives in relation to equity participation may however go beyond fiscal objectives and include the transfer of skills training and employment, and a range of additional political-economic considerations.

[7] https://eiti.org/document/eiti-standard-2019#r2-4

## 4. How does a PSC fiscal regime compare to a concessionary (tax/royalty) system

There is **no intrinsic revenue tax reason to prefer a tax/royalty regime over a PSC regime**. From a revenue point of view, the fiscal terms of a tax/royalty regime can be replicated in a PSC regime, and vice versa. Policy makers can achieve similar profiles of revenue under tax/royalty systems compared to PSC regimes but with different instruments.

In this respect, from a practical point of view, fiscal differences between concessionary and PSC systems relate more to difference in instruments and terminology for basic concepts to both systems and how easily they can be adjusted to achieve the aspired fiscal take allocation.

| Relative advantages of the different approaches | Tax/Royalty | Production Sharing Contracts |
|---|---|---|
| Fiscal Regime | Generally, the fiscal regime is defined in applicable tax/ hydrocarbon laws.<br><br>In some jurisdictions petroleum agreements can specify tax and royalty but this can make it more complex and lead to more potential conflicts with applicable tax law. | PSCs can permit a more cohesive set of conditions governing petroleum exploration and development to be consolidated in one document (when compared with some concession/licensing systems), which can be specific for the particular geographic and other risks of a particular license or area.<br><br>It may also be helpful in case the presence, quality and accessibility of the resources differ in different areas of the country. E.g. one province may have oil whilst offshore the country may have gas resources. |
| Stabilisation | The extent and form of a stabilization clause in a petroleum agreement can be more limited in regimes where the fiscal take is predominantly or entirely defined in applicable laws, a situation more prevalent in tax/royalty regimes. | In petroleum agreements, such as PSCs, where some or most of the fiscal instruments are defined in the contracts, the stabilization clause can be more effectively incorporated to allow the impacts of tax law and other changes to be considered the overall agreement. |
| Depth of detail | Tax law provides more information and certainty on tax implications.<br>General tax law may not cater for relevant issues [e.g. creation, deductibility of decommissioning costs] and changes to general legislation can take too long or even be contested in Parliament. PSC may | Tax clauses may sometimes be short and, unless clearly set out, can lead to uncertainty and ambiguity.<br>The tax aspects may sometimes be covered in different parts of the agreement rather than in one clause (e.g. the accounting procedure, decommissioning costs). PSC are easier to include specific technical detail with tax consequences [but do not always do so]. |

| | | |
|---|---|---|
| | present some flexibility in this regard. | Interaction with general [tax] law should [but is not always] be sufficiently catered for. |
| Contractual Obligations and implications | A number of conditions for E&P are normally stipulated in the petroleum agreement, generally remitting tax obligations to the law. | PSCs, are contracts, and contractual rights, additional to statutory rights, can therefore be offered to investors.<br><br>It is important that PSC also includes the procedure and commitment by the government to provide certifications on payment of taxes, particularly where the government pay taxes on behalf and to for the account of the contractor (gross-up). It is good practice for the company to comply with the tax law with regard to reporting/filing requirements. |

Whereas a concession and tax/royalty system may set terms for extraction, allocation of extracted resources and taxation in various instruments, the ultimate objective of a PSC system is to create a coherent framework that:

- Fulfils the mutual interest between the host government and the contractor,
- Provides certainty, clarity and consistency throughout all aspects of the agreement, and
- Provides an equitable and sustainable arrangement for both highly profitable and less profitable commercial discoveries.[8]

## 5. Setting up a PSC

As a PSC is in essence a contractual agreement, it tends to determine not only the fiscal take but also more importantly it sets out the **rights and obligations** of all parties as to the production of the natural resources in scope and how to allocate and share this production. Although PSCs have some particularities due to the relevance of the subject treated and the partners involved, they are contracts that are generally part of the legal system of a country. There are also legal framework aspects to consider.

In this respect, it is important to bear in mind the interaction between the tax clauses in PSCs and the general domestic tax system, specifying if necessary, in the contract or in the domestic law the relation between both systems. Using a PSC may require more alignment and more rules to provide clarity and certainty of the oil and gas tax regime with regular corporate and other tax.

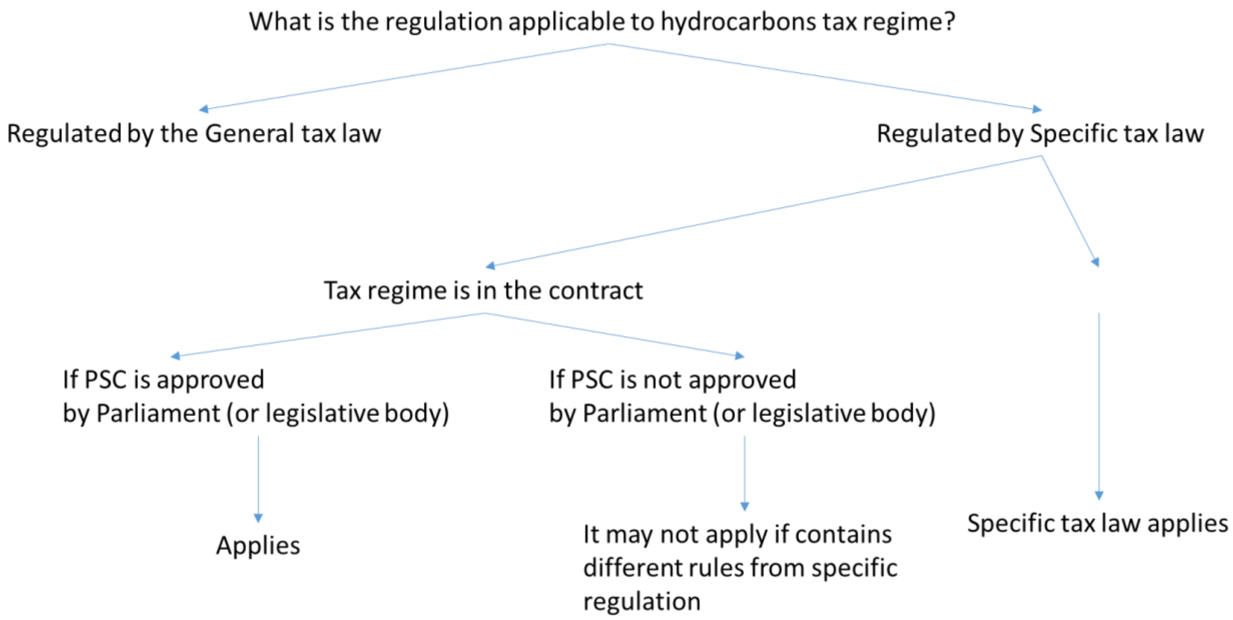
8 An important aspect of exploration, as determines whether a discovery is economically feasible and should be developed.

**Example: Article 17.1 Liberia Model contract**

*Unless otherwise provided for in this Contract the Contractor shall, in respect of its Petroleum Operations, be subject to the laws generally applicable and the regulations in force in Liberia concerning taxes which are or may be levied on incomes, or determined thereto.*

Whether the tax regime is regulating PSCs or not, it is crucial (and advisable) that law regulates all tax issues, i.e. it should be regulated by the legislative branch (e.g. Parliament), especially when exemptions are involved.

In the case of conflict between PSCs and the general or specific tax law, the latter may prevail depending on the legal framework. It is preferable that the tax law should be designed so that it incorporates the specifics of the sector and, accordingly, the tax law includes a specific chapter for the O&G sector. This will help facilitate consistency, fairness, transparency and reduce tax administration and tax compliance cost. It would also be advisable to negotiate on the basis of a PSC Model already approved by the government as it improves predictability and legal certainty and reduces discretionary powers of government negotiators.




Using a PSC allows more diversity in styling fiscal take of each project in a country. The specific terms of the contracts between the government and the O&G companies seeking to operate in the country vary from country to country and are a reflections of a country´s petroleum fiscal policies.

## 6. PSC characteristics and features relevant from a tax point of view

Despite some of the reasons discussed below, a country may find PSCs as a system more suitable to meet its objectives taking into consideration that they are contractual. The fact that in some PSCs legal and fiscal matters can be determined by the contracting partners permits to achieve the level of detail that is required to allow sufficient flexibility around risk-reward allocation, adaptation to geological or other geographical conditions of the site or stabilization (which is relevant for investors).

PSCs are typically comprehensive contracts that provide a degree of flexibility not found in other regimes. Governments need, however, to consider some drawbacks and complications that are normally attributed to PSCs. Most of these disadvantages can be avoided if considered when negotiating a PSC but will have to be agreed when occurring once the PSC is in place.

### A. General features of PSCs

#### a. Clarity

This can be especially helpful in situations where the local legal and fiscal framework for oil and gas development is absent, insufficient or inappropriate. E.g. countries where no oil and gas development has taken place and therefore have no hydrocarbon legislation or tax could set up a PSC system that would cater for first developments.

In case the accessibility, nature, quality or extent of resources is different, a PSC system can be clearer on how such differences will be catered for in a particular area. E.g. countries with mining legislation but no oil and gas legislation may want to allow prospecting for oil and gas. Whilst adapting mining legislation or introducing new comprehensive oil and gas legislation may take a considerable time, a PSC could allow parties to faster achieve clarity on parties' rights and obligations in the necessary detail.

#### b. Flexibility

A PSC system could be adopted easily adapted for different types of geological sites or other circumstances. This may be used by certain countries to attract investments by providing more favorable fiscal terms to less developed areas (i.e. frontier areas) where O&G is less expected to be discovered. In this respect, in countries with both on-shore and offshore O&G developments, it is commonly found that they have separate PSC models where they differentiate between on-shore and off-shore tax regimes to reflect the significantly different and increased risks carried in the off-shore by the O&G company compared to onshore developments.

#### c. Enhanced stable framework

The preference for PSCs when there is need for flexibility and adaptability is often influenced by the status of the general legal and fiscal system in a country. Countries where the legislative system is well established often prefer to introduce a level of flexibility and adaptability by introducing and adopting hydrocarbon taxation through general legislation or adjust the existing fiscal system through a concessionary system.

PSC may, however, be enacted into law to provide legal certainty and protection. In countries where the O&G legal and regulatory framework is less mature, agreements such as PSCs can allow the host government to provide a comprehensive contractual framework more adapted to O&G without undertaking extensive reformulations of applicable laws and regulations. In many countries such contracts need to be passed or confirmed by the Parliament. It is often easier to confirm contracts containing specific conditions for specific areas and activities than to pass general legislation that could impact many economic actors in the whole economy.

## d. Transparency

Where the government decide that oil and gas agreements must be kept confidential, as is the case of some countries where PSCs are used, a downside of PSC systems may be that they are less transparent, as terms can be set as negotiated and may therefore vary between different contract areas in the same jurisdiction. Governments can choose to respond to these concerns by requiring the publication of petroleum agreements.

In addition, a PSC system can exist within the framework of the legislative system, where overarching legislation sets the general conditions and terms within which individual PSCs should be adopted [e.g. Gabon – convention d'etablissement].

However, given the progress by governments, international financial institutions and the Extractive Industries Transparency Initiative (EITI)[9], contract disclosure in the oil, gas and mining sector is advancing and an increasing number of companies support the publication of contracts and licenses by the governments of the jurisdictions in which they have activities[10].

As already indicated in point c., many countries already require Parliament to confirm PSC, a process which tends to imply a certain level of transparency. These processes also do increase sustainability as confirmed contracts tend to be seen as having wider support.

## e. Complexity

A downside of the flexibility of PSC terms is the fact that they are often considered more complex. Whereas tax authorities may be comfortable with applying corporate taxation, even if potentially adjusted to a more specific hydrocarbons focused profits taxation, they may be far less ready to assess, implement and review the fiscal implications of a PSC. PSCs are often implemented and administered by Ministries, other than Finance, that are responsible for energy and mining (e.g. the Ministry of Petroleum or Natural Resources which can be found in many resource-rich jurisdictions). In any case, the Ministry of Finance should be aware of and validate the fiscal terms as well as have an understanding of the other terms in the PSC.

On the other hand, PSC terms are often more easily capable of dealing with diversity as the system is contractual, terms can be adjusted to fit the specific features of the resource to be developed. For example, fiscal terms that are very suitable for onshore oil development may not be appropriate and therefore attract no investment for offshore deep-water gas. For a concession regime to offer the kind of flexibility and adaptability, the underlying corporate and other tax aspects of the fiscal take are more difficult to achieve and often more complex.

At the extraction phase, oil, gas and mining tend to be subject to a variety of fiscal terms that can include bonuses, royalties, production sharing (rarely mining) and windfall profit taxes, as well as corporate income tax. The diversity of fiscal instruments that has emerged in the past 15 years in the hydrocarbons

9 https://eiti.org/

10 Oxfam. Contract disclosure survey 2018. A review of the contract disclosure policies of 40 oil, gas and mining companies: https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620465/bp-contract-disclosure-extractives-2018-030518-en.pdf;jsessionid=85ED532E904F3E7780333E8BD76EF700?sequence=4

industry alone include at least 21 different R-factors; 28 different types, scales or formulas for royalties; 35 different ways to structure profit/cost oil; 31 different ways to organize government participation; and 12 different price sensitive windfall profit features.[11] A PSC can be an easier way to combine and manage these different instruments of sharing the resource than having various legislative instruments, the interaction of which are not explicitly dealt with.

## B. Common features of PSCs

Despite the variety of fiscal terms that PSCs may have, PSCs tend to describe and regulate various aspects of the future relationship the O&G company will have with the government or government company owning or managing the resource and allocate the risks and rewards related to the resource to be exploited. Therefore, certain common features can usually be found in PSCs. Most countries publish a model PSC as a starting point for negotiations and customization.

### a. Transfer of resource ownership

As mentioned, under concessionary systems, transfer of title of the O&G to an extracting company will occur upon production (at the well head). Unlike in a concession, under contractual systems the government still retains full ownership of resources and O&G companies have the right to receive a share of production (profit oil) at the delivery point (to be mutually agreed by the parties: e.g.: the point at which petroleum reaches the outlet flange of the tanker in the oil export facility) as a reward for the risk taken and services rendered. Under a service contract, the contractor normally does not acquire the title to the resource.

**Example of definition of delivery point: PSC Irak (Kurdistan Regional Government)**

*"**Delivery Point** means the place after extraction, specified in the approved Development Plan for a Petroleum Field, at which the Crude Oil, Associated Natural Gas and/or Non-Associated Natural Gas is metered for the purposes of Article __, valued for the purposes of Article __ and ready to be taken and disposed of, consistent with international practice, **and at which a Party may acquire title to its share of Petroleum under this Contract** or such other point which may be agreed by the Parties."*

### b. The Joint Operating Agreement (JOA).

JOAs are particularly relevant in any petroleum agreement or license, including PSCs, where multiple working interest owners normally exist, including the government (directly or, more commonly, through a government-owned oil company)[12]. PSCs includes many of the provisions that would appear in the JOA, but in many occasions a separate or more JOAs are executed (e.g. private owners (IOC) may elect to execute a separate JOA, besides the JOA signed with the government-owned oil company-National Oil Company or NOC). Where an O&G company participates in more than one PSC in a country, a different JOA will be signed for each of the PSCs in which it has a working interest, leading to each PSC independently managed through the consortium governed by the partners under the corresponding JOA[13].

11 PFC Energy, Van Meurs Corporation & Rodgers Oil & Gas Consulting (with assistance from Barrows company) (2012), 'World Rating of Oil and Gas Terms', volume 5A, p.20. From www.eisourcebook.org

12 JOA has no relevance if the O&G company is 100% the owner of the working interest.

13 See Chapter 3 (Permanent Establishments) for the treatment and consideration of PSCs as a separate permanent establishment.

The legal framework for joint ventures can be also of relevance fiscally for indirect tax purposes. In case the ownership of resources passes upon production and subsequently again when changing ownership from joint ventures to eventual participants, indirect tax liabilities may be triggered.

As mentioned, a typical feature of PSC is that the government is able to take a direct share in the revenue from high risk investments. Many governments have opted for state participation in petroleum joint ventures (JVs) via an option for the NOC to participate in development projects.

**Example: Article 2 of the Liberia PSC Model (Scope of the Contract)**

*1 The Contract is a Production Sharing Contract and includes all the provisions of the agreement between NOCAL and the Contractor.*
*2 NOCAL authorizes the Contractor to be the Operator pursuant to the terms set forth herein and to carry out the useful and necessary Petroleum Operations in the Delimited Area, on an exclusive basis.*
*3 The Contractor undertakes, for all the work necessary for carrying out the Petroleum Operations provided for hereunder, to comply with good international petroleum industry practice and to be subject to the laws and regulations in force in Liberia unless otherwise provided under this Contract.*
*4 The Contractor shall supply all financial and technical means necessary for the proper performance of the Petroleum Operations.*
*5 The Contractor alone shall bear the financial risk associated with the performance of the Petroleum Operations. The Petroleum Costs related thereto shall be recoverable by the Contractor in accordance with the provisions or Article ___*
*6 During the term hereof, in the event of production, the Total Production arising from the Petroleum Operations shall be shared between the Parties according to the terms set forth in Articles ___ and ___.*

The government´s contribution to capital and operational costs is normally paid out of subsequent production. Such structures effectively allow a government to reduce or eliminate the need to allocate cash from other projects.

Equity or direct participation in production for governments can take several forms, including:

- A full working interest, which places the government on par with a private investor. In this case, the government is an equal partner in the PSC from the start, taking up its full obligations and rights relating to its participation in the venture in the same way other partners do;

- Paid-up equity on concessional terms, where the government acquires its equity share, sometimes at a below-market price, especially when being able to buy into the project after a commercial discovery has been made but at a price set in advance;

- A carried interest, where government does not contribute to the obligations in line with its share. Government may pay for its equity share out of its own production proceeds, including an interest charge;

- **The accounting procedure**

JOAs include an accounting procedure, which is a critical part of the contract, however it does not determine the proper treatment of cost for financial accounting purposes (i.e. whether a cost should be treated as an investment, and capitalized, or an expense), but rather the proper contractual treatment of costs and if such cost directly relates to operations or is considered an indirect cost (overhead).

The costs incurred by the operator for the benefit of the joint operation and associated with a specific joint operation are recorded in a joint account. In this respect, each month the operator must estimate the cash that will be required to pay invoices and meet obligations for the upcoming month and will require the collection of cash from the other partners by means of cash calls (estimation of costs in advance) or billing and payment (utilization of own funds by the operator which bills to non-operators afterwards). For these purposes, the operator is commonly required to maintain an office where, amongst others, all such accounting records, receipts, invoices, etc. are kept[14]. Normal practice in the petroleum industry is for the US dollar to be used as the functional currency for cost accounting and budget records, with the US dollar also being used for international commodity pricing and income.

In this respect, the operator is obliged to keep the accounts and provide the other partners with the data that will allow them to prepare their tax returns. Furthermore, the responsibility for the presentation of the tax declarations corresponds to each one of the partners of the JV.

Typically, non-operators, including the government-owned oil company, are entitled to conduct and audit at their own costs and raise any objection, but generally is not acceptable for them to deduct the disputed charge form cash-calls or payments. Most PSCs contain time-limits for audits, which would supplement any prescription periods that have effect under the applicable law.

- **The PSC operating committee**

A common feature of most PSCs is the formation of an operating committee, normally composed of representatives from the contractor and the state-owned oil company. The role of the operating committee is to permit the government and the rest of participants to get involved in the operations of the block. The operator usually prepares an annual work program and budget for review and approval by the operating committee and typically makes the most relevant decisions (approval of major expenditures, evaluation of results, determination of the commerciality of discoveries).

The appraisal activities aim at the determination of the commercial success of the O&G reservoir. If economically viable the operating committee may take the decision to enter the development phase, converting the exploration rights into development rights and formulate a field development plan (FDP). If no further development is intended, the parties may take the decision to abandon the block or transfer their participation to a third party by notifying their decision to the relevant authority[15].

If not, all Parties have acceded to the FDP, parties which have acceded to the plan may propose that the development be carried out on a sole risk basis. Activities that may be carried out on a sole risk basis normally include geological, geophysical and stratigraphic surveys and tests, drilling of exploration wells, deeper drilling or further evaluation of deposits. A party may propose that a project which is not adopted by the management committee be carried out as a sole risk project.

- **No profit-No loss principle**

One of the foundations of all the JOAs, and that is the usual practice of the activity of the E&P, is that the operator will perform functions at cost, without adding any margin to the operation. Nevertheless, the operator has the right to charge an overhead, which is compensation for the work carried out by the

[14] See Chapter 3 (Permanent Establishments) for the treatment and consideration of the office as a separate permanent establishment.
[15] See Chapter 3 (Permanent Establishments) for the moment when discontinuation or transfer to a third party of an E&P related PE determines the cease of existence of the PE.

operator function. The overhead /indirect charges are normally set up according to the investments and varies from the stage of exploration and development and production.

The operator will normally be part of an international cost-sharing arrangement under which it will have access to technology and services developed or provided by its foreign affiliates. Normal practice, established more than fifty years ago, in the E&P sector of the petroleum industry is that the operator is charged for its contribution to such an arrangement at cost, with no mark-up. A more detailed description of cost-sharing arrangements and documentation requirements can be found in Chapter VIII of the Guidelines on Transfer Pricing for Multinational Enterprises and Tax Administrations (OECD 2017).

### c. Ring-fence vs. consolidation

Ring -fencing is a rule that prevents costs or losses in one area being offset against income in another area. All costs associated with a given block area must be recovered from revenues generated within that area, which can have an impact on the recovery of exploration costs and end up in final sunk costs (i.e. if the country of residence does not allow for deduction).

Some countries allow only certain classes of costs associated with a block to be recovered from revenues from another field (e.g. only exploration, but not development costs) or allow deduction of exploration costs incurred by an abandoned block with revenues from a producing block.

Through ring-fencing, governments seek to allocate full exploration risk on the contractor. A downside of not allowing exploration costs to be fully or partially deducted across the boundaries of a block is that O&G companies may not be willing to further invest in exploration, whereas consolidation works as a financial incentive for the sector to explore, especially to O&G companies that already have existing production and are paying taxes within the county[16]. It noteworthy that once the government has allowed exploration costs from one area to be deducted from revenue of a producing area, it may be unwilling to allow further deduction, e.g. development costs. The government will assume that a company should do necessary studies before spending on development and deducting such costs from another area would be unjustified or at a minimum would be rewarding risky behavior.

### d. Final remarks

PSCs have become the fiscal system of choice for many countries. From above features, the choice of PSC can be found more on political and practical aspects of keeping certain degree of control on the development of the O&G sector as the fundamental difference relates to the ownership of the resource, as well as defining how the government and O&G companies will share the costs and profits from determined fields than from strictly a tax point of view, which may not be such a critical issue if we compare with other systems[17].

[16] Daniel Johnston, International Petroleum Fiscal Systems and Production Sharing Contracts, PennWell, 1994, Pages 68-69.

[17] Daniel Johnston, International Exploration Economics, Risk, and Contract Analysis, (PennWell Books, Tulsa, Oklahoma, 2003). Page 197.

**Example: Nigeria moving to a PSC system**

Nigeria factored in the following considerations regarding the distinction between Concessionary and Contractual Systems which led them to move to one system:

a) **Funding:** Under the Concessionary system, all parties to the Joint Venture (JV) fund the operations of the JV in proportion to its equity ownership or economic interest. Whereas, under the Contractual system, the Contractor bears the funding obligation 100%.

   Funding is the major reason why the Nigerian government moved from the JV Concessionary arrangement to Production Sharing Contracts as government is unable to meet its cash call obligations under the Numerous JV owned by the Nigerian National Petroleum Corporation (NNPC).

b) **Risk:** Under the Concessionary System, risk is shared among the parties to the JV in proportion to their equity ownership, whereas under the contractual system, based on the terms of the contract, the risk is borne 100% by the contractor.

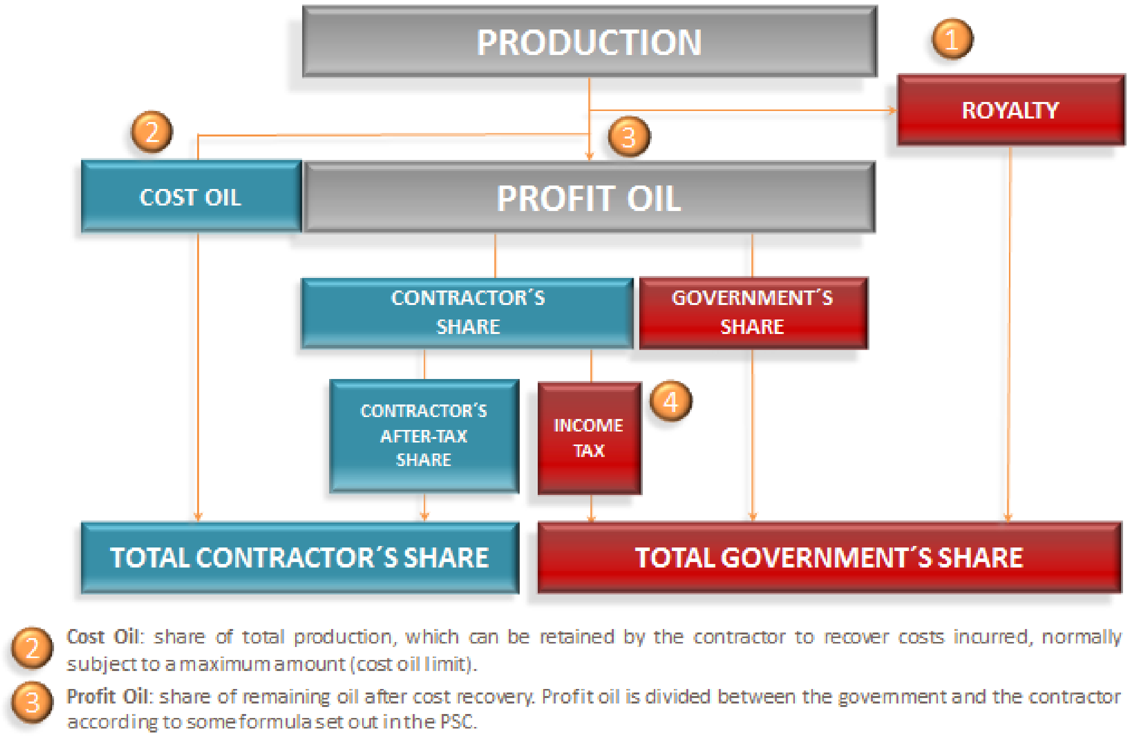
In addition, under the contractual system, there is not compensation if exploration is unsuccessful or a dry hole is drilled. For this reason, other mechanisms, such as exemptions during the exploration phase, are set up.

## 7. Framework of a PSC: Sharing production

### A. General framework

The following features continue to outline the nature of the government/contractor relationship under PSCs. With respect to the sharing of production, the general idea behind a PSC is quite simple. These contracts rule the way the production is shared between the investors and the government. It sets out the terms under which the resource holder is willing to trade ownership of the production in exchange for a share of this production and the revenues derived from it, often both directly (e.g. profit share) and indirectly (e.g. corporate income tax).

**Example: Framework of a simple PSC**




Determining the production, how it is lifted and shared, is a main feature of the PSC. It will form a major part of the fiscal take and the contract clauses regarding production and production sharing will certainly influence the fiscals.

### B. Profit Sharing

PSCs include a fiscal instrument that defines some of the production as "Profit Oil/Gas" and shares it between the State and Contractor.

### a. Cost Oil

Most PSCs contain a cost recovery provision, which determined the procedure by which the contractor is able to recover its costs. The O&G that goes to the working interest partners to allow them to recover their costs is referred also as “cost oil” or “cost gas”.

Therefore, “cost oil” is the oil retained by the contractor to recover the costs of exploration, development and production. Apart from *ring-fence,* most PSCs limit the amount of cost oil that can be retained in a given accounting period, with the effect that the State receives its share of profit as soon as production commences. That is, because each contract generally limits recoverable costs to a percentage of total production under each contract and denies recovery for costs incurred under other contracts held by the contractor, the government is entitled to a share of production whether or not the contractor's project is profitable.

**EXAMPLE, ANGOLA:**
**Model Contract, Angola, Deep Water, 1999.**

*Contractor Group shall recover all exploration, development, production and administration and services expenditures incurred under this agreement by taking and freely disposing of up to a maximum amount of 50% per year of all crude oil produced and saved from development areas and not used in petroleum operations.*

Usually the amount of hydrocarbons to be recovered through the "cost oil" is limited to a percentage of the production (investments in capital goods are incorporated via depreciation). Costs that are not recovered are carried forward and recovered later; most PSCs allow virtually unlimited carry forward and if production is sufficient during the life of the contract, the working interest owners will eventually recover all their recoverable expenditures.

PSCs normally specifies which costs are eligible for cost recovery[18]. Usually, these include unrecovered costs carried from previous years, operating expenditures (OPEX), capital expenditures (CAPEX) and abandonment costs. They may also specify the order of recoverability and limitations on recoverability. For example, some contracts limit recoverability by depreciating development costs, which means that only a fraction of such costs are recovered each year.

In addition, most contracts specify the order in which costs are to be recovered, something that is important to the contractor as is the one that bears the whole exploration activity (operating and development activities are shred with the government-owned party). A common order of cost recovery could be: (i) current year operating costs, (ii) unrecovered exploration and appraisal expenditures, (iii) unrecovered development expenditures, (iii) capitalized interest, if allowed, (iv) any investment credit or uplift and (iv) future abandonment cost fund[19].

Expenses not eligible for cost recovery may include (depending on government´s policy) bonuses, royalties; interest or other financing related payments and overheads beyond specified limits; and costs outside the budget (unless approved by government).

18 In general, the financial expenses, the payment of entrance bonuses and the overhead of the parent company are not recoverable, they are usually limited with a reference to a% of the investments.

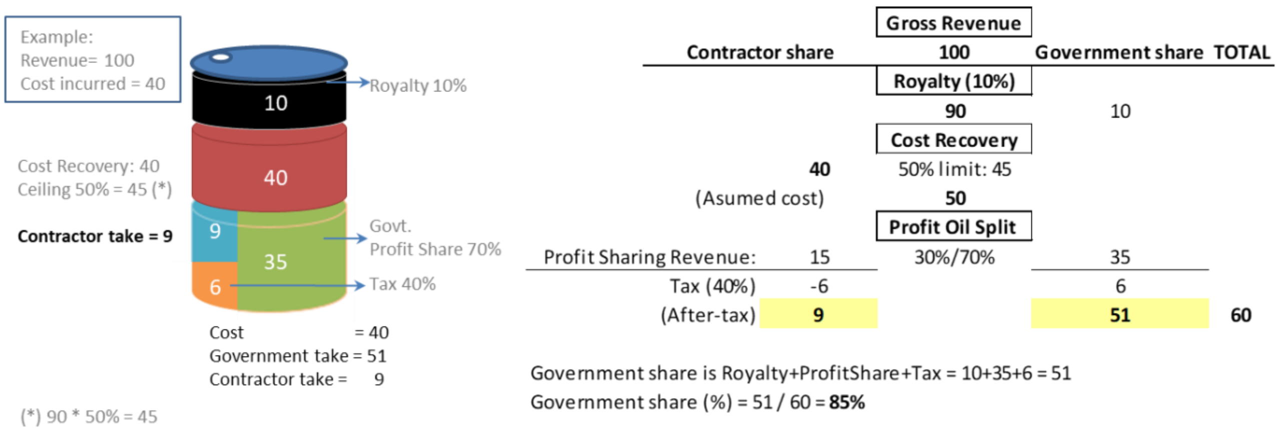
19 Charlotte J. Wright and Rebecca A. Gallun, Fundamentals of Oil & Gas Accounting (PenWell Books, Tulsa, Oklahoma, 2008).

## b. Profit Oil

Share of production remaining after royalty (and other production taxes, if any) is paid and cost oil has been delivered to the contractor, paid in cash or in kind is referred as profit oil. [20].

Profit oil is shared between the parties, sometimes allocating a specified percentage of the profit oil directly to the government, with the members of the contractor group, which may include the government-owned company, sharing the remaining oil in proportion to their participation under a formula established in the PSC.

For example, if a company is a party to a contract that specifies a royalty of 10% and a cost recovery oil equal to a maximum of 50% of gross production, until all development costs are recovered, profit oil would be 40% (100% - 50% -10%). Profit oil is not equal to profits and would likely exist where costs have not been yet recovered and in situations where the contractor is actually in a loss accounting position.




In most countries, the contractual terms of distribution of the production of liquid and gaseous hydrocarbons are different, with the fiscal terms for the gas usually more beneficial for the contractor due to higher development costs and/or lower sale price for natural gas.

The production sharing formula is generally specified in the contract (and often times in the government´s legislation). There are many ways to distribute the Profit Oil. The most common are:

- Fixed percentages: The portion that corresponds to existing PSC governments varies between 40% and 85%.

- Variable scales: The percentages of distribution can vary depending on one or several variables, e.g.: production, “R” Factor (income / disbursements), rate of return, prices, others. There are four main production sharing formulae developed by host governments[21]:

[20] Please Note Indonesian Government released a new O&G gross split regime in 2017, which coexists with the current cost recovery regime.

[21] IMF, Fiscal Regimes for Extractive Industries: Design and Implementation (15 August 2012).

| Production Sharing formulas | |
|---|---|
| **Daily Rate of Production (DROP)** | Government share of profit petroleum increases with the daily rate of production from the field.<br>Weaknesses are that field size is often a poor proxy for project profitability and the mechanism is not progressive with respect to oil prices or costs. Attempts have been made to blend this with a scale of prices. |
| **Cumulative production from project** | Government share of profit petroleum increases as total cumulative production increases. Again, an inaccurate proxy for project profitability. Such schemes are becoming rarer. |
| **'R-Factor'** | Government's profit share increases with the ratio of contractor's cumulative revenues to contractor's cumulative costs (the 'R factor'). This improves on DROP in being a more direct measure of profitability, but does not recognize the time value of money. Also, since R-factor is a cumulative indicator, current project profitability has no/low impact on the R-factor value. As a result, R-factor can make ongoing investment more challenging especially later in the life of the project, which could result in suboptimal development of the host country's hydrocarbon resources |
| **Rate of Return (ROR)** | This is a form of rent tax (provided that exploration is part of costs) under which the government's share is set by reference to the cumulative contractor rate of return, no tax being levied if that falls short of some benchmark rate. Single or multiple tiers are used, though analysis suggests a single tier is effective. Similarly, to R-factor, this is traditionally a cumulative indicator, and will make ongoing investment more challenging unless its calculation is designed to be dynamic, e.g. to reflect the current project profitability |

**Example Daily Rate of Production:**

| Daily Production Rate (thousands bbls/day) | Government Profit Share (%) |
|---|---|
| 0-25 | 30% |
| >25-50 | 35% |
| >50-75 | 40% |
| >75-100 | 55% |
| >100 | 60% |

**If average daily production for the agreed time period was 45,000 bbls per day**
**Government Profit Share = [(30%*25,000) + 35% (20,000)]/45,000**
**Government Profit Share = 32.2%**

Finally, the IOC has to pay income tax on its share of profit oil. Sometimes the tax on the share the contractor receives is part of the production sharing (e.g. through tax oil) or to be paid in kind. The tax treatment is often described in specific fiscal clauses in the PSC.

# 8. Principal fiscal related clauses in PSCs

Besides sharing production, a number of other instruments allocate production. Some of these instruments include more direct allocation of production whilst others cover the revenue governments indirectly receives as part of the overall fiscal take.

PSCs includes fiscal clauses that determine the fiscal treatment of the production shared. The primary fiscal components of a PSC may include (i) bonuses, (ii) royalty, (iii) cost recovery, (iv) profit oil, and (v) taxes.

Contractors often pay bonuses for having the right to operate. Once oil production commences, they usually have to pay royalties levied on gross production. In return, it has the right to recover the costs of exploration and petroleum activities (cost oil). The reminder of production (profit oil) is split between NOC and IOC at an agreed rate.

Given that under PSCs output is also shared, IOCs are usually obliged to pay the generally applicable income tax, or not at all. In these cases, when there is no income tax, the tax is not paid directly but is instead part of the government's profit-oil share. Anyhow, it should be taken into account that IOCs are not only concerned with the tax treatment in the host country but also with the tax law in its residence country. Nevertheless, countries usually are only focused on their own legislation and conflicts can be avoided if they have the full picture.

The key is to find the balance between the need for the country to obtain a fair share (to allow the people to receive the benefits of the deployment of the natural resources) and the incentive of the IOC to invest in the country.

## A. Bonuses

Bonuses are can be negotiated, set by the host government or biddable for each contract and may be different depending on the stage of the O&G project:

| Type of Bonus | Description |
|---|---|
| Signature Bonus | Payment made by the contractor to the government at the time that the petroleum contract is granted. It may be determined through a bidding process, negotiation, or set by legislation. |
| Development Bonus | A relative smaller sum of money is paid at the signing of the contract with another payment being due if and the decision is made to develop a field within the contract area or with subsequent payments being made if and when production reaches a specified level. |

| | |
|---|---|
| Production Bonus | Payment made at a certain point in time during the life of the petroleum contract. May occur at the time that a commercial discovery is declared (discovery bonus), at the time that petroleum production begins, at a defined production rate or at a defined quantity of cumulative production. |

In each under “development” and “production” bonuses, the government is assuming some risk since it normally receives a lower amount of payment from the investor at the signature of the contract, and if O&G is not discovered no additional bonus would be received. However, governments may consider such this type of bonus on the basis that lower up-front signature bonus will allow contractors to increase their investment in exploration activities, potentially resulting in larger and more timely discoveries of O&G that could materialized in royalties and other tax contributions.

**EXAMPLE FROM THE LIBYA MODEL PSA:**

*Signature bonus: as a signature bonus, a lump sum amount of ……………… US Dollars (US$ ………………);*

*Production bonus: (a) an amount of XX US Dollars (US XX) to be paid in respect of each Commercial Discovery within thirty (30) days after Commercial Production Start Date of such Commercial Discovery; and (b) an amount of XX US Dollars (US XX) upon achieving cumulative production of XX (XX) Barrels of oil equivalent from each Commercial Discovery and thereafter, an amount of XX US Dollars (US XXX) upon achieving each additional thirty million (XX) barrels of oil equivalent.*

Typically, bonuses are not recoverable through cost recovery, but they could be deductible against income and withholding taxes. However, countries may adopt different approaches depending on their domestic policy, as shown in the examples below:

| Country | Bonus Treatment |
|---|---|
| Malaysia | Signature bonuses to be paid are cost recoverable, and for tax purposes are qualifying exploration expenditure tax deductible under Initial Allowance of 10% and Annual Allowance of 15% or calculation based on a formula, whichever is the greater. |
| Vietnam: | Non recoverable / tax deductible |
| Indonesia: | Non recoverable / nontax deductible |

## B. Rentals (land, surface fees)

Generally paid annually on the basis of the size of the acreage under lease, normally at the beginning of the calendar year or contract year. They may take on different forms: it could be a fixed amount for the contract or per square km. of operations land, the “object value” or a negotiated amount.

The basis for charging may vary between exploration/exploitation phase or onshore and offshore and may be payable depending on the territorial zone in which operations are carried out. Normally they are considered as a recoverable cost or deductible, but in some countries is not deductible.

They have the advantage that provides the government with regular income and encourages voluntary relinquishment of acreage. However, they may raise issues regarding the delimitation of the "area".

**EXAMPLE. INDONESIA LAND AND BUILDING TAX (PBB):**

Tax rate: 0,5% of a "deemed" tax base (ranges from 20% up to 100% of the "object value", being a statutory value). In 2013 it was changed to provide for post GR 79 PSCs a self-remit tax and claim it as cost recovery. This change become a concern as most post GR 79 PSCs were still in exploration phase (uncertainty of cost recovery).

The Directorate of General Taxes (DGT) issued a clarification for the "offshore" component of objects to specify that only apply to the area "utilized" (the term "utilized" was not defined).

Later, the DGT issue new compliance and calculation procedures for PSCs, where:

- The definition of "offshore area" did not refer to "utilization", giving rise to uncertainty.
- Introduces a "zone" concept, which could include areas outside the PSC contract area.

However, there still is under clarification by tax authorities based on distinction between surface working area and subsurface reservoir area.

**Example: Nigeria Signature Bonuses and Lease Rental**

In Nigeria, IOCs pay a signature bonus to government for the right to an Oil Mining Lease (OML) after which a PSC contract is signed with the government or holder. The signature bonus is not recoverable.

The OML is a license granted to an IOC to extract crude oil and/or gas in commercial quantities from a defined area for sale or export. The money paid to government upon the award of this license is known as "Signature Bonus", this is a one-off payment.

In addition to the Signature Bonus, the IOC will pay lease rental or concession rental to government on an annual basis. The lease rental is likened to rent of the land / area where the OML is granted. The difference between the Signature Bonus and Lease Rental is that: (i) Signature Bonus is a one-off payment upon award of an OML. It is capitalized and not allowed for Cost recovery. (ii) Lease Rental is an annual payment for the duration of the OML which allowed for tax deduction and Cost recovery.

In PSC an OML is granted for a duration of 30 years whereas in JV the duration is 20 years. At the expiry of the license, the government may renew it or award the license to another Company. The Signature Bonus is paid upon award of an OML irrespective of whether the IOC is renewing such license.

## C. Royalties

Despite the fact that title to the minerals in the ground does not pass to the contractor, most PSCs contain provisions whereby a royalty is paid to the government out of production. Royalties are based on the volume or value of petroleum extracted and can be paid either in cash or in kind. Payment in kind involves delivery of physical quantities of O&G to the government (normally in some cases by the government-owned company).

They are based upon gross revenues that can be determined at different points of valuation: e.g. wellhead, block boundary, export terminal or point of sale. The point of sale, however, may be different than the point of valuation. The statutory royalty may allow transportation costs from the point of valuation to the point of sale to be deducted (netback transportation cost).

They are paid as soon as commercial production commences, providing early revenue to the government and are based on gross revenues, with no consideration of costs or cost recovery. This may have the consequence of investors not willing to realize new investments in marginal situations or the early abandonment of marginal producing field due to its regressive effect.

To prevent these situations, contracts may include royalties paid on a sliding scale, so that royalty rate varies based on selected variables such as price, hydrocarbon type, etc. They are lower with lower production and increases as production increases.

| TYPE OF ROYALTIES | | |
|---|---|---|
| Fixed Percentage | Of Production (e.g. 10% of oil extracted). | Easy to administer, but do not take into account the profitability of the project (regressive). |
| Sliding Scales | • Level of field Production,<br>• Level of well Production,<br>• Level of well Production and Price,<br>• Cumulative Production,<br>• Based on payout,<br>• Based on Internal Rate of Return,<br>• Based on gravity of oil,<br>• Based on elapsed time<br>• Etc. | The rationale is that larger production levels may lead to greater profitability. However, this is not necessarily the case and such production-based sliding scales can result in undesirable impacts on investment decisions. Price-based sliding scales are generally more desirable in that respect. Note also that variable royalties are more burdensome to administer |

Some exclusions from royalty payment apply with respect to e.g. O&G vented or flared (with approval), reinjected, used in field operations or acceptable losses.

- ***Sliding Scale Royalties***

Sliding scale royalties are used to escalate the royalty based on a factor or factors agreed in the contract that tends to predict the profitability of a project. Normally production levels are a poor proxy for profitability, but there are other factors that can be used (e.g. prices, costs and timing, production, IRR). Instead, price is more reliable indicator for profitability.

**EXAMPLE, ALGERIA:**
**The rate is determined in each contract. However, the law has fixed a minimum rate per area** [1]

| Production (BOE) / Area | A | B | C | D |
|---|---|---|---|---|
| 0-20,000 BOE/day | 5.5% | 8.0% | 11.0% | 12.5% |
| 20,001-50,000 BOE/day | 10.5% | 13.0% | 16.0% | 20.% |
| 50,001-100,000 BOE/day | 15.5% | 18.0% | 20.0% | 23.0% |
| > 100,000 BOE/day | 12.0% | 14.5% | 17.0% | 20.0% |

- ***R-factor***

Some countries have designed the royalty rate to depend on the "R factor" ("R" stands for "ratio"). The R-factor model varies depending on the profitability of the project from all sources, e.g. oil prices, project costs, production profile and reserves. A common "R-factor" is the ratio of cumulative receipts from the sale of petroleum to cumulative expenditures. R-factors are based on payout.

R= Cumulative Revenue (1) / Cumulative expenditure (2)

(1) Cumulative net revenue actually received by the contractor for all tax years less taxes paid.
(2) Cumulative expenditure, exploration and appraisal expenses and operating costs actually incurred by the contractor from the date the contract is signed. Therefore, is defined as the accumulated capital expenditure (Capex) and operating expenditures (Opex).

The factor R is calculated in each accounting period; and once the threshold is crossed then the new tax rate will apply in the next accounting period.

The ratio is initially zero during exploration as there is no sale of petroleum while there may be considerable expenses and gradually grows in time. An R-factor less than 1 would mean that costs have not been fully recovered yet (total expenditures exceed total receipts). At payout, the R-fact will equal to 1 and the larger the R-factor, the more profitable the operation. The royalty rate or the government's share of production may increase with increasing R-factors.

When the threshold is reached, the factor R can be applied as follow:

- Applying a % over the exceeding cash flow.
- Increasing the royalties.
- Increasing the Profit Oil.

- Increasing the corporate income tax.

Some advantages of applying the PSC sliding scale system using R-factor are as follows:

- Provide a progressive fiscal system that can balance interests between the government and the investors.
- Create incentives for the investor company to maintain the level of project profitability.
- Minimizes the need of changes or renegotiation of contract terms.

However, there are some challenges of implementing PSC sliding scale with R-factor:

- The contractor may avoid spending relatively unnecessary costs to inhibit an increasing R-factor that reduces company share (“*gold plating”*).
- Determining the R-factor band. The band may be different depending on the field but should target a reasonable rate of return for investors.

PSC sliding scale system offers a progressive system that can be attractive for marginal projects, which today are increasing their number, balancing the risks in facing price surges, e.g. oil price volatility, during the field lifetime, i.e. exploration, development and production[22].

## D. Corporate Income Tax

Most PSC-based systems also include a tax on profits. The different forms of calculation could be:

- Corporate income tax is calculated separately, but with the same calculation as that used for Cost Oil. In these cases, the corporate income tax is simply a % of Profit Oil.

- Corporate income tax is calculated separately, in accordance with the corporate income tax law which are different from the basis used to calculate Cost Oil.

- Corporate income tax is included in Profit Oil/Gas paid by the state company "on behalf of" the contractor” (Gross Up/Tax Paid PSC) and the basis for its calculation is provided in the tax law and/or the PSC.

### a. Direct payment by the contractor:

Example of PSC with payment of direct taxes by the contractor is **Indonesia** model. In this country, the contractor must satisfy a corporate income tax at an effective rate of 45%:

(I) Corporate tax, which rate is 25% and

(II) Tax on the remittance of funds ("final tax on profits after tax deduction") at the rate of 20%, payable regardless of whether a dividend is distributed or there is a remittance of funds from the branch to the central house and an international CDI between the country of residence of the operator and Indonesia.

[22] Trian Hendro Asmoro. PSC Sliding Scale as A Fiscal Model for Marginal Fields in Indonesia. IPA16-25-BC. 2016.

The following example illustrates the application of the gross up:

**Guyana:**
In addition to the corporate income tax, the Government undertakes to satisfy, with its share of profit oil and on behalf of the contractor, not only the corporate income tax, but also the royalties and any other similar tax that may arise.

**Kurdistan:**
*“The share of the Profit Petroleum to which the GOVERNMENT is entitled in any Calendar Year in accordance with Article___ of this Contract shall, be deemed to include a portion representing the corporate income tax imposed upon and due by each CONTRACTOR entity, and which will be paid directly by the GOVERNMENT on behalf of each such entity representing the CONTRACTOR to the appropriate tax authorities in accordance with Article ___ of this Contract. The GOVERNMENT shall provide the CONTRACTOR with all written documentation and evidence reasonably required by the CONTRACTOR to confirm that such corporate income tax has been paid by the GOVERNMENT.”*

*“Each CONTRACTOR entity shall be subject to corporate income tax as provided in Article ___ below, which shall be deemed to be inclusive and in full and total discharge of any corporate income tax of each such entity. Payment of the said corporate income tax shall be made for the entire duration of this Contract directly to the appropriate Kurdistan Region tax authorities by the GOVERNMENT, for the account of each CONTRACTOR entity, from the GOVERNMENT’s share of the Profit Petroleum received pursuant to*

### b. Government (including National Oil Companies) payment on behalf of the contractor.

Contractor’s profit share is taxable; however, some host countries pay such taxes on behalf and to for the account of the contractor from its own share of the production (also known as “taxes paid on behalf or “in lieu”).

Examples of PSC with payment of tax by the NOC would be the case of Egypt, Libya, Guyana and Iraq (Kurdistan). In these countries the profit oil of the State, includes a volume of hydrocarbons sufficient to satisfy the corporate income tax of the contractor (in some cases, also other additional taxes), so that in order for the contractor to calculate the tax base of his corporate income tax, it is necessary to use the gross up formula and apply the local corporate income tax rate to calculate the tax payment.

The fact that the government satisfies the tax in the name and on behalf of the contractor, does not exempt the latter from presenting a corporate income tax declaration and fulfilling the rest of the formal obligations in the country, since the contractor remains the corporate income tax taxpayer, regardless of whether the government is responsible for payment of the tax.

For double taxation relief purposes in the contractor´s resident country, it is very relevant that the contract establishes the necessary documentary requirements showing that obligations derived from PSCs are equivalent to the payment of income tax[23].

## 8. Non-fiscal clauses generating tax issues

To understand the full potential of the interaction between PSCs and the tax law, it is not sufficient to understand and assess the fiscal clauses but also be aware of some of the other features of PSCs.

[23] In 1976, the Internal Revenue Service of the USA ruled that oil companies would not enjoy a tax credit on foreign income derived from PSCs as it was characterized as a royalty and concluded that this obligation did not constitute an "income tax".

In this respect, PSCs may also contain **non-fiscal clauses** as related to the duration of exploration and exploitation, bonuses, duties, the state participation in the operations, domestic market obligations, work programme, local content (e.g. training programs), etc. It is important to be aware that non-fiscal clauses may have an impact on the ultimate fiscal take.

One is the corporate investment structure in the country of operation. Many countries oblige the IOCs to form an "office", branch or company. It may happen during the exploratory stage. It is possible to invest through a branch, but for the presentation of the FDP it is necessary to invest through a local company. Main issues in this regard are treated in the Permanent Establishment Chapter[24], including the fact that more than one PE may actually exist within one country. This is the case as the common construct is to have one JOA for each underlying petroleum agreement. Other issues relate to ring-fence that were also mentioned in this chapter above.

Further, other non-fiscal clauses that clearly affect tax matters are described below:

## A. Contract period.

Considerable time may elapse between investment in the extractives industry and the realisation of profits. PSCs are therefore long-term in nature. Typically, they provide for a term of 20 or 25 years or longer from the commercialization of the asset. One of the differences between oil and gas due to market constrains is timing of production (typically gas discoveries do not get developed until long time after discovery as it usually takes longer to get on-stream and cannot produce as quickly as oilfields).

The following framework can be found in some PSCs regarding contract period:

Exploratory phase: First phase X years (minimum commitments XX MUSD with / without exploratory drilling) and second phase x years (minimum commitment XX MUSD - X exploratory drilling). Maximum extension of X years.

Development and production phase: (I) Crude: XX years, with potential extension period(s): X + X + X. If an extension is requested, the fiscal terms can be maintained or renegotiated depending on the terms of the PSC. (II) Gas: XX years, divided with potential extension periods: X + X + X.

## B. Domestic market operation (DMO).

Many PSCs require the contractor to sell a portion of its share of production to the host government to help meet the local market demand. This requirement is referred to as domestic market obligation (DMO) and is based on some government’s policy to supply and satisfy domestic demand. In some PSCs such obligation applies only if the government’s and the NOC’s share of production are not sufficient to meet the local demand. Usually, this contractor obligation is proportional to its share of production relative to the total production of the host country, and in some cases subject to a cap defined in each PSC.

In some PSCs the price the contractor can charge for the DMO oil or gas is at a discount to world market prices (occasionally the contract establishes a maximum price that may be below the market price that the contractor could have received if the domestic market obligation had not existed). This form of fiscal take will be typically incorporated in the contractor’s project economics. In some PSCs the government may also pay for the domestic crude in local currency at a predetermined exchange rate. Such DMO terms may

24 Chapter 3 of the Handbook.

expose the investors to lower price realization and foreign exchange risks, with a negative impact on the competitiveness of the opportunity, and investors may require a higher share of the profits as a result. Both aspects need to be carefully and clearly established in the PSC for the sake of certainty.

**Example of a DMO clause:**

*After commercial production commences, fulfill its obligation towards the supply of domestic market. CONTRACTOR agrees to sell and deliver to the Government of _____ a portion of the share of Crude Oil, (…), calculated for each year as follows:*
*(a) Compute [X] per cent of CONTRACTOR´s entitlement (…) multiplied by total quantity of Oil produced from the Contract Area;*
*(b) The price at which such Oil be delivered and sold (…) shall be [X] per cent of the price determined under Sub-section (…), and CONTRACTOR shall not be obligated to transport such Oil beyond the Point of Export, but upon request CONTRACTOR shall assist in arranging transportation and such assistance shall be without cost or risk to CONTRACTOR.*

## C. Work Commitments programme

A key issue in PSCs negotiation is the work programme that outlines the contractor's commitments regarding to e.g. seismic, drilling, information disseminations, financial obligations and employment of local workforce.

Examples of minimum work obligations in the Exploration phase:

- Specified in terms of kilometers of seismic data and number of wells to be drilled. Seismic work may constitute the only work in least explored (frontier) areas, may consist of seismic data acquisition with an option to drill exploration wells.
- Acquire and interpret certain seismic data required to decide whether to drill a well.

Sometimes a minimum expenditure level is required in the work commitment. The terms of the work commitment outline indemnities for non-performance (e.g. failure to drill a well as established in the petroleum contract). It is a sensitive aspect for exploration activity (as they embody most of the risk).

**EXCERPT FROM THE EQUATORIAL GUINEA MODEL PSA 1**:
*(a) obtain...all existing 2D and 3D seismic data and Well data at a purchase price of [___] Dollars ($[___]) ...and the Contractor shall undertake to interpret such information;*
*(b) reprocess [____] km. of existing 2D seismic data and [___] km. of 3D seismic data; and*
*(c) acquire [____] kilometers of new 3D seismic data.*
*During the Second Exploration Sub-Period, the Contractor must drill a minimum of [___] Exploration Well[s] to a minimum depth of [_____] meters below the seabed. The minimum expenditure for this period shall be [___] Dollars ($[____]).*

**EXAMPLE. EXCERPT FROM THE INDIA MODEL PSA 20051:**
*During the currency of the first Exploration Phase…, the Contractor shall complete the following Work Programme:*
*(a) a seismic programme consisting of the acquisition, processing and interpretation of [____] line kilometres of 2D and/or [____] sq. kms. of 3D seismic data in relation to the exploration objectives; and (b) [__] Exploration Wells shall be drilled to at least one of the following depths : i) [__] metres and [___] (geological objective); ii) to Basement; and iii) that point below which further drilling becomes impracticable due to geological conditions encountered and drilling would be abandoned by a reasonable prudent operator in the same or similar circumstances. Abandonment of drilling under this provision by the Contractor, would require unanimous approval by the Management Committee.*

## D. Responsibility of abandonment and decommissioning:

The resource ownership may lead to the subject of abandonment under a PSC. Under a concessionary system, the investor is typically responsible for abandonment, whereas under PSCs, unless specific provisions have been included in the contract the government is typically legally responsible for abandonment[25]. Properly structured, the abandonment cost can be estimated and anticipated through cost recovery during the producing years[26].

**Example of abandonment responsibility of contractor: PSC Kenya.**

*"If the Government does not elect to continue using such facilities, assets or wells, **the Contractor shall be responsible for their abandonment and decommissioning** upon termination of this Contract or of the Development Area within the corresponding Development area, if earlier. Contractor may in consultation with Government defer the abandonment and decommissioning operations for a reasonable length of time if this would result in operational efficiencies, which minimize the cost for all parties."*

[25] Silvana Tordo, Fiscal Systems for Hydrocarbons. Design Issues. World Bank working paper no. 123 (2007). Page 8.

[26] See Chapter 6: "The tax treatment of decommissioning".

## 9. Economic Stability

Fiscal stability means that the fiscal regime applicable to the contract on the date of signature remains

An example of these clauses is the following:

*The State guarantees to the Contractor, for the term of the Contract, that the legal, economic, taxation, customs and financial conditions shall remain stable. Nevertheless, subject to compliance with the general balance of the Contract and should the legislation change, the Parties shall attempt to come to an agreement concerning the legal, economic, taxation, customs and financial conditions, thus preserving the balance of the present Contract.*

**Qatar Economic Stabilization clause**:

*Economic Stabilization: In the event CONTRACTOR is subjected by GOVERNMENT or QP, to any additional liabilities, fees, taxes, imposts or costs of any sort or kind, other than de minimus ones, during the term of this Agreement, then CONTRACTOR shall have the right to request from QP a modification to the terms and condition of this Agreement that will restore CONTRACTOR to the economic position it was in prior to the imposition of such liabilities, fees, taxes, imposts, or costs.*

unchanged, regardless of the changes that the fiscal laws undergo, both the general ones of the country and those specific to the hydrocarbon sector. The tax regime remains "frozen" from the signing of the contract until its completion.

Increasing stability improves the risk/reward ratio around investments and project. As it reduces risk, it will influence reward. Hence sometimes, as a counterpart to the fact of having a stable fiscal regime throughout the life of the contract, it has a higher tax rate.

Fiscal stability clauses can also be available in general legislation. E.g. France at various occasions looked at enhancing fiscal stability by including statutes. Many countries have legally or judicially confirmed principles of stability, like rules prohibiting retro-actively applicable legislation

Fiscal stability in PSCs clauses have been evolving overtime and the more recent PSCs tend to contain an economic stability clause.

In this case, the contractor will be subject to tax changes and new laws that are applicable in the country, although in the contract, the parties undertake to maintain the economic balance of the contract at the date of signature. Usually such adjustment requires an agreement between the parties, either through a new contract or an addendum.

Sometimes it is a clause that plays only in favor of the contractor, who may benefit from the tax cuts but will not affect the increases. Others have clauses that compensate for negative impacts of new legislation on investor tax take, whilst not allowing investors to take advantage or be compensated for improvements in fiscal systems.

In the case of some PSCs, in which a net remuneration is agreed for the contractor (in the case of Indonesia), it is necessary to make a new distribution of Profit oil / cost oil.

It can affect any type of tax or changes in them in relation to the tax regime applicable at the time of signing the contract.Sometimes the change is required to be "material" and normally the term "material" is not defined either in the applicable legislation or in the contract itself.

Fiscal stability clauses may cover only specific taxes, leaving contracts open to the negative impact from newly introduced taxation [e.g. carbon taxation]. The newer economic stability clauses generally consider the overall tax take. Overall, the scope and application of the clauses will influence the risk/reward basis of the contract, especially in countries considered to have less legislative and political stability.

## 10. Country examples

## BRASIL

#### Brazilian geological area subject to Production Share Contracts

The Brazilian Production Share regime is limited to a particular geological formation, known as pre-salt. This is defined by the Law number 12.351, enacted in December 22nd, 2010, Annex.

The pre-salt polygon, which has approximately 800 km in length and 200 km in width, is located in Brazil offshore, from the Santa Catarina state coast to Espírito Santo state coast, with an area around 149 thousand km².

The Pre-salt is a geological formation where a thick salt layer holds a massive amount of oil and gas below it. Located in offshore ultra-deep waters, the pre-salt layer has until 2.000 meters of thickness.

The region has other oil and gas fields also above the pre-salt layer, which are called post-salt deposits, these deposits are the conventional oil and gas ruled by concession regimes, by the other hand, the production share regime governs the pre-salt deposits exploration and production.

The reason to have a different regime to the pre-salt deposits is that these geological formations have a very low exploratory risk and they are likely to have a high production level.

The Brazilian Fiscal Regime for the Oil and Gas industry is a mixed regime with concession and production sharing schemes. Brazil charges royalties and special participations (windfall tax) over production. The special participation is charged over fields with large production, it is a kind of profit tax. These governments interests are management by the National Agency of Petroleum, Natural Gas and Biofuel (ANP – Agência Nacional do Petróleo, Gás Natural e Biocombustíveis).

The other part of Government Take directly involves the Federal Tax Administration and Tax Administrations of the subnational States'. Brazil charges income tax at a 34% nominal rate, which is a federal tax. For income tax purposes the signature bonuses, royalties and special participation are deductible.

#### PSC consortiums Brazilian Government Representatives

The Brazilian State is represented in all PSC for a whole state-owned company called Empresa Brasileira de Administração de Petróleo e Gás Natural S.A. – Pré-Sal S.A., or simple PPSA. This company was incorporated by the Decree number 8.063, enacted on August 1st, 2013.

Who is the consortium operator?

All PSC in Brazil will be conducted by a consortium because, whatever the bid outcome, the winner is obliged to associate with PPSA which will indicate the Operational Committee president and half of its members.

With this in mind, there will be two different situations: the first is when Petrobras chooses to participate of the exploration and production, in this case, Petrobras will be the operator with nothing less than 30% of the equity participation, the other one is when Petrobras doesn´t use its right, when the operator will be a free choice of the contracted companies.

**Tax Issues in PSC regimes**

The Brazilian´s oil and gas regulatory regime is independent of Brazilian´s income tax legislation, no matter if it is a concession or a PSC regime. The regulatory regime deals with Brazilian government interests which are: royalties and special participation (windfall tax) in concession regime, or royalties and State profit oil in PSC and signature bonus in both cases.

These government interests are charged in a ring fence base considering the field as a production unit, split from the other company´s enterprises for determining the profits or the amount of royalties, and in the case of PSC, the oil and gas volume in regard of the State profit oil share.

The Brazilian oil and gas income tax legislation follows the general taxation rules. There are many laws, decrees, and instructions that rule the Corporate Income Tax, but only two norms deal with the oil and gas industry income tax in particular. These are the Law number 13.586, enacted on December 28th, 2017, and the normative instruction, number 1.778, enacted on December 29th, 2017.

This same law, this time combined with other normative instruction, with number 1.781, enacted on December 29th, 2017, and with the Decree number 9.537, enacted on October 24th, 2018, deal with the Customs regime for Oil and Gas Industry, called REPETRO.

The establishing of cost oil and the profit oil, and therefore, the State share of production, has a close relation with the accounting rules and principles, as well as with the taxation rules and principles; however, they are ruled by the contract provisions.

Many different expenses are nondeductible for cost oil determination, for instance: royalties and signature bonus, interests and financial expenditures and income tax, although these expenses are deductible to corporate income tax.

The cost oil in Brazilian PSC allows the expenses with decommissioning provisions, and annually the balance amount shall be adjusted by a contractual finance index.

None of these PSC provisions are allowable in the accounting/tax standards.

We call your attention for that transactions between related companies use transfer pricing rules, usually the same of tax legislation, regarding cost oil ascertainment.

All the expenses which are allowable to be recovered as cost oil are registered in a proper account, mixing investments and operational costs, referred to as Cost Oil account. The rate which the company is allowed to use the cost oil amount balance in each year varies from 50% to 100% of the gross production value.

The value which exceeds the cost oil recover limits can be carried forward to the next fiscal year.
For taxation matters, the investment expenditures and the operational costs have different treatments. The investments have a capital allowance which consists of a rate of amortization of 2,5 times the unit product method rate, and the operational costs are deductible on an accrual basis.

**Non-Produced resource ownership**
The non-produced oil and gas belongs to the Brazilian State. The company´s production ownership arises at the production share point, after the PPSA audit the cost oil and profit oil.

There is a clause which restricts the export of production in emergency cases, and establishes, in this case that the production must be sold in the Brazilian market.

**Risks and Equity**

All the expenditures, in all project phases, as the entire risks of project failure, or loss, and the environmental restoration in the case of an accident, or even compensation for third parts are company's liabilities.

However, there is a law provision that allows the Brazilian Government to establish a fund that would invest in selected projects, assuming part of the risks as an enterprise partner, but it hasn´t set up yet.

**Ownership of Assets**

The assets belong to the consortiums; however, they can be reverted at the end of the contract or at the relinquishment contract area´s plots to the Brazilian State. The conditions which this provision is applied are determined by the need of these assets to continue the operations in that area.

There is a huge difference between this provision and the property reversal to Brazilian Government in concession contracts, since the later only is applied when the asset acquisition cost is deductible for the calc of the windfall government interest (special participation), and the National Oil Agency must consider that asset required to continue the operations in the decommissioning area.

**Government Interests**

The government interests charged in the Brazilian Production Share Agreements are royalties at 15% rate and signature bonuses only. The Brazilian revenue raised from the Union oil share in 2018 was around US$ 353.9 million[27].

**Local Content**

There are local content requirements established in the contract. They vary from a global percentual of local equipment and services purchases, as well as a percentual of local content per phase with different rates for different fields.

**Work Program**

There is a work program, and the companies must present financial guarantees for the estimated value of seismic research and drilled wells in the contract.

**Tax Clauses**

There aren´t.

**Tax Stability Clauses**

There aren´t.

**Economic Stability Clauses**

There aren´t.

**Brazilian Government Fixed Percentages of the Profit Oil Share**

| Round | Field | Government % Share |
| --- | --- | --- |
| First | Libra | 41,65 |

[27] Available in https://www.presalpetroleo.gov.br/ppsa/conteudo/147_326_relatorio_anual_administracao_2018.pdf

| | | |
|---|---|---|
| Second | South of Gato do Mato | 11,53 |
| | Around Sapinhoá | 80 |
| | North of Carcará | 67,12 |
| Third | Peroba | 76,96 |
| | High Cabo Frio West | 22,87 |
| | High Cabo Frio Central | 75,8 |
| Fourth | Três Marias | 49,95 |
| | Uirapuru | 75,49 |
| | Dois Irmãos | 16,43 |
| Fifth | Saturno | 70,2 |
| | Titã | 23,49 |
| | Pau-brasil | 63,79 |
| | South West of Tartaruga Verde | 10,01 |

## NIGERIA

Three categories of PSCs were executed in Nigeria;

- The 1991/1993 PSCs
- The 1998 PSCs
- The 2005 PSCs

Some of the major fiscal terms of each of these classes of PSCs were;

a. **The 1991/1993 PSCs**

- OPL Obligation – 50% of contract area to be relinquished after 10yrs
- OML/Production Period – for a renewable minimum period of 20yrs
- Production Bonus – 0.2% for Cumulative Production up to 50million barrels, 0.1% for Cum Production upto100million barrels (this is calculated on current price at the time of attainment of target). Bonus is fiscally deductible but not recoverable from cost oil.
- Royalty rate is a graduated percentage of production volume ranging from 12% to 0% for the Deep Offshore, and 10% for the Inland Basin (Benue Block).
- Tax Rate – the DOIBA provides for the determination of the PPT payable in accordance with the provision of the PPTA with a proviso that the tax shall be at the flat rate of 50% of chargeable profit for all PSCs.
- Investment Tax Credit (ITC) – an amount equal to 50% of QCE incurred in the year to be set-off against assessable tax to arrive at chargeable tax.
- No cost recovery limits
- Profit Oil = Production – Royalty Oil – Cost Oil – Tax Oil

b. **The 1998 PSCs**

The same terms of the 1993 PSCs were maintained except for;

- Introduction of Investment Tax Allowance (ITA) which replaced ITC. ITA is amount equal to 50% of QCE incurred to be claimed as part of Capital allowance.
- Introduction of Cost recovery limits.

c. **2005 PSCs**

Same fiscal terms with the 1998 PSCs with the introduction of;

- Increased Signature Bonus
- Royalty rate no longer 0% where water depth exceeds 1000m. 1% royalty rate for water depth beyond 1000m.

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