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ARE JOINT CONTROLLED ASSETS AND JOINTLY CONTROLLED ENTITIES SIMILAR ARRANGEMENTS? A CASE STUDY IN THE OIL AND GAS INDUSTRY IN ANGOLA

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I was quite wrong. Writing a dissertation proved a very difficult task and implied many hours of work, reading many papers and enduring the Descartes doubt every time I read a new paper.

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ABSTRACT

This dissertation examines joint ventures of a large oil and gas group operating in Angola: it uses a case study with the aim of confirming whether their jointly controlled assets and jointly controlled entity are similar in their economic essence. We address this issue by understanding the legal and economic environment of those two types of arrangement.

The results of the case study suggest that the two arrangements have legal and economic similarities, mainly due in both settings to the following: the venturer/investor held a veto power for major decisions; this veto power is bound by a written contractual mechanism; the venturer/investor has an active role in the activity of the arrangement; and the venturer/investor is implicitly obliged to fund the operations of the arrangement.

The results of the case study also suggest that the accounting treatment of the joint arrangements should be discussed in conjunction with the other types of arrangement, i.e., the definition of the joint arrangements should be part of a framework for investments made by the investor in any entity.

Keywords: joint ventures, oil and gas industry, proportionate consolidation, equity method

JEL Classification: L71, M41

RESUMO

Esta dissertação examina os empreendimentos conjuntos de um grupo do sector petrolífero que opera em Angola, com vista a confirmar que os activos conjuntamente controlados e as entidades conjuntamente controladas são economicamente idênticos. Para o demonstrar foi desenvolvido um estudo caso. Esta questão foi abordada através da compreensão do ambiente legal e económico destes dois tipos de empreendimentos conjuntos.

Os resultados do caso estudo sugerem que os dois tipos de empreendimentos conjuntos são legal e economicamente similares, devido sobretudo aos seguintes factos: os empreendedores/investidores detém o poder de veto para as decisões mais importantes; este poder de veto é assegurado por um mecanismo contratual reduzido a escrito; o empreendedor/investidor tem um papel activo na actividade dos empreendimentos conjuntos; e o empreendedor está implicitamente obrigado a financiar as operações do empreendimento conjuntamente controlado.

Os resultados do caso estudo também sugerem que o tratamento contabilístico a dar aos empreendimentos conjuntamente controlados não deve ser dissociado de outros tipos de empreendimentos, i.e., a definição de empreendimentos conjuntamente controlados deveria ser parte de uma estrutura conceptual sobre investimentos feitos pelo investidor em uma qualquer entidade.

Palavras-chave: empreendimentos conjuntamente controlados, indústria petrolífera, consolidação proporcional, método da equivalência patrominal

Classificação JEL: L71, M41

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INTRODUCTION

This dissertation looks at joint ventures in the oil and gas industry with the aim of understanding whether or not a JCA and a JCE are economically different. It argues that there is no reason for a differentiated accounting treatment for consolidation purposes for these two situations.

According to IAS 31, there are three types of joint venture: jointly controlled operations (JCO), Jointly Controlled Assets (JCA) and Jointly Controlled Entities (JCE). In the current text of IAS 31, accounting of JCEs can be done using proportionate consolidation or the equity method.

In the proportionate consolidation method, assets, liabilities, expenses and revenues generated from a joint arrangement are included in the venturer's financial statements line-by-line; on the other hand, in the equity method, the venturer's interest in a joint arrangement is reported in a single line on the Balance Sheet while the net profits/losses of joint ventures are recognized as revenue or expense accordingly in the Profit and Loss Account.

This dissertation also strives to contribute to clarifying the current discussion on the proposed changes in the IAS 31 by IASB (Exposure Draft 9 – Joint Arrangements), where, among other improvements, the Board intends to eliminate the application of the proportionate consolidation method to account for the interest of the ventures in a JCE; by making the equity method mandatory and prohibiting the use of proportional consolidation as an alternative method.

The aim is not to define which method - proportionate consolidation or the equity method - is preferable when reporting the JCEs.

Moreover, as our focus is only on the oil and gas industry, the conclusions drawn cannot be extended to other industries.

To achieve the above mentioned objectives, a case study has been made of one of the largest oil and gas groups worldwide; more specifically, our study is conducted in Angola where this group has a significant activity in both the oil and gas production sectors, namely at the upstream level. This is quite a common setting for a joint arrangement (JCA, and in some cases JCEs) to explore and produce oil and gas due to the significant investment involved in such activities.

The group holds both JCAs and JCEs at the upstream level. The JCA result mainly from the concessions (known as blocks) granted by the Angolan Government, where the

group can act either as Operator, or Non-Operator because it is the jointly controlled entity and was determined as the legal entity[1].

This dissertation is organized in four parts: the first reviews the previous studies made in the subject area. The second part describes the legal framework for the oil and gas industry, namely the ownership of the mineral rights as well as the various types of ownership and the type of joint arrangement contracts. The third part analyzes the accounting treatment of the Joint Ventures in main jurisdictions such as Canada, the United States and the United Kingdom, as well as in the international setting. The case study is developed in the fourth part. We start by describing the legal framework in Angola, specifically the concessions under the PSAs and legal mechanism included in the referred JCE hold by the group, as well as the accounting treatment made by the group for these two situations.

The dissertation demonstrates that the Concessions under the Production Sharing Agreements (JCA) and the JCE under analysis regardless of their legal structure (which is governed by common commercial law) both have the same the economic essence since:

- Their major decisions are subject to the unanimous consent of all partners;
- The unanimous consent clause is bound through a written contractual arrangement (either by Joint Operating Agreement or by Shareholder's Agreement);
- Venturers and investors have an active role in the course of the operations through the various committees established in the two settings;
- Generated independent cash flows from partners' core businesses that comprised the arrangement so that the underlying assets is realized; the joint control over the asset is established as the venturers/investors have the power to veto any strategic decision, consequently meeting the asset recognition criteria;
- Liabilities incurred in those arrangements are actual obligations of each partner since the Joint Operating Agreement and Shareholding Agreement legally bind the partners to fund the joint arrangement operation/investment, either by capital subscriptions or cash calls; consequently, the liabilities within those arrangements will meet the recognition criterion for liabilities.

Hence, although the main conclusion confirms that both arrangements are substantially similar, surprisingly accounting treatment followed by the group is not the same.

[1] Some of the shareholders reported their interest in this jointly controlled entity as investment.

While the assets, liabilities, expenses and revenue generated under PSA (JCA) are included line-by-line in the group's Consolidated Financial Statements, the investment in the JCE is included in the Consolidated Financial Statement by the equity method.

The above arrangements, which are created either by a contractual agreement between the partners or by the setting of a legal entity, require unanimous consent between partners and/or investors. Partners or investors are vested with veto power which is a much stronger influence than the concept of "significant influence" under IAS 28 – Investments in Associates that an investor would have in an associate. Hence, the investors and/or partners in the joint arrangement can actually influence a major decision even if they hold only a small percentage. As a result, we conclude that the resources made available to partners/investors would be jointly controlled, both under PSA concession and in the JCE.

The accounting treatment for JCA allows the group to recognize both assets and the related liabilities, revenues and expenses line-by-line in the holding company's Financial Statements, based on its share in the arrangement, because it is understood that assets and liabilities are jointly controlled and the venture has only a joint control and not full control over them.

Consequently, the conclusion suggests that assets and liabilities included within a JCE, which has been demonstrated to have the same characteristics and features as JCA, are accounted for differently, only because of the way that arrangement was set, i.e., its legal form.

1. PREVIOUS STUDIES ON JOINT VENTURES

For many years, academia has debated the merits and demerits of using proportionate consolidation as opposed to the equity method to report the interests on joint arrangements, although the latter is the most common method chosen by most accounting setting bodies.

The accounting literature has devoted much attention to identifying the determinants and reasons behind companies choosing JCE as a business structure instead of forming a subsidiary or associate. One of the most important studies was made by Hennart (1988) who stated that there are usually four main objectives/reasons for forming a JCE: economies of scale and diversifying risk; overcoming entry barriers into new markets; pooling complementary knowledge; and allaying xenophobic reactions when entering a foreign market. Hennart's study classified two different types of JCEs: Scale JCEs and Link JCEs.

A "Scale JCEs arise when parents seek to internalize a failing market, but indivisibilities due to scale or scope economies make full ownership of the relevant assets inefficient." Hennart (1988:372). Industries that are dependent on large suppliers are an example of this type of JCE. In this case, the venturers would be players in the same industry (automobile manufacturers) and those venturers would enter in a joint arrangement to join forces in order to be independent from a large supplier, for instance, avoiding the falling market transaction costs. Autoeuropa is an example of a scale JCEs. According to its web site, when Volkswagen and Ford signed the Autoeuropa Automóveis, Lda. "joint-venture" in 1991 the project responsibilities were divided: Volkswagen led the work on vehicle development, while Ford planned the factory facilities and purchasing[2]. The upstream activities carried out by the oil and gas companies are another example of scale JCEs, since it is quite common for a number of large companies in this sector to join forces, to explore and develop new oil and gas fields by creating joint arrangements; this is not only due to the significant financial effort required for such an enterprise, but also the technology usually involved.

On the other hand, a "link JCEs (would) result from the simultaneous failing of the markets for the services of two or more assets whenever these assets are firm-specific public goods, and acquisition of the firm owning them would entail significant management costs." Hennart (1998:372). A joint arrangement between a producer and distributor would be an example of this type of JCEs. As previously referred by Hennart, overcoming entry barriers

[2] http://www.autoeuropa.pt/articles/en/who-we-are

into new markets or avoiding xenophobic reactions when entering a foreign market can explain the preference for a JCE rather than a fully owned subsidiary.

Others studies, such as Berg and Friedman (1978) and Gamble (1990), stated that the management's real motivation for choosing a JCE instead of acquiring a subsidiary is that these arrangements can be used as a vehicle to mask the true magnitude of the debt held at the JCE level. This conclusion is more perceptible in the US setting as the use of the equity method to account for the corporate joint ventures (APB 18) is mandatory in the US GAAP, and consequently any guarantees provided by the venturer to the JCE would be reported as contingent liability in the footnote of the venturers' financial statements.

However, JCEs are often set up to handle risky projects (Kogut, 1991) and the equity method would not provide enough information about the implicit risk of those projects. Additionally, Kogut argued that the proportionate consolidation method does not provide such information to users either. This conclusion supports the early study (Dieter, 1978) where it was demonstrated that the information provided in both methods is not sufficiently detailed to portray the risks and rewards associated with the joint arrangements.

Lourenço and Curto (2010) recently analyzed a sample of UK companies' Financial Statements in 2005; this was the year in which UK firms had to change from the gross equity method under FRS 9 to one of two options referred in IAS 31 (equity method or proportionate consolidation). They conclude that the type of JCE, based on the Hennart (1998) classification (scale or link), is an important determinant in the management's choice of reporting method to account for their interests in the JCEs. The analysis provides empirical evidence that debt covenants and the monitoring costs also play an important role in the choice of the alternative method of reporting.

Conversely, other studies focused on the merits and demerits of the use of the equity method to portray JCE reality, as opposed to proportionate consolidation.

One of the most relevant studies was made by Graham et. al (2003). The authors focused on the relevance of proportionate consolidation as opposed to the equity method to the information provided to users by this method. The authors used a sample of Canadian companies available in 1999 Standard & Poor's Disclosure file that adopt proportionate consolidation as their accounting method.

Based on financial statements of the companies from the aforementioned sample, they restated the interests held in JCEs reported by the proportionate method to the equity method.

When they compared the information contents provided by the application of the two methods and its impact on predicting accounting return on common shareholders' equity, they found evidence that the information provided by proportionate method supported better predictions of future return on shareholders' equity.

Similarly, Kothavala (2003) referred that the main issue regarding accounting treatment for JCEs is whether the equity method or proportionate consolidation is required. The paper studies the differences between financial statements prepared under the proportionate consolidation method and the equity method; it demonstrated on one hand that the use of the proportionate consolidation method provided more useful insights than the equity method to determine the price volatility risk for instance but that the equity method ratios better explained the bond ratings.

Other authors such as Bierman (1992) argue that the proportionate consolidation method would provide better quality information and consequently should be applied not only to joint arrangements but to all types of material equity investments, even subsidiaries. Davis and Largay (1999) argue that there is "no substantive justification for continued use of the equity method (...) due to the method's intrinsically limited informational characteristics."

Another important study on the choice of the accounting of joint arrangements was conducted by Stoltzfus and Epps (2005). They assessed the impact of the accounting of JCEs' debts on the venturers' financial statements if the venturer accounted for its interest in joint arrangement by the equity method or by the proportionate consolidation, when the market is about to determine the bond risk premium based on the debt level of the venturer. The study concluded that proportionate consolidation provided the market with more useful information to assess the bond risk premium, specifically when the venturer provides the joint arrangement debt guarantees. The authors also argue that in the US GAAP the guarantees that the venturer makes to a JCE would be reported as contingencies in the footnotes in the venturers' financial statements and these debts would be considered as off balance sheet items although they are essentially present obligations.

Stoltzfus and Epps (2005) also argued that obligations from joint ventures depended a great deal on how creditors perceive the relationship between JCE (in US terminology: the corporate joint ventures) and their venturers. In their study, the authors defined two models for joint venture debts, a legal and implicit model: whereas in the legal model, the venturer's maximum exposure to joint venture debts would be their cost in the investment, the implicit

model often suggests that the operations of the venturer are so closely related to the JCE that the JCE debts are implicitly assumed by the venturer, because the venturer's ultimate goal is the success of the JCE.

Consequently, the authors argue that legally the joint arrangement would be better portrayed by the equity method if this arrangement has no purchase or throughput agreements or provided debt guarantees to the joint arrangement; on the other hand, in the implicit model, it would be better portrayed by the proportionate consolidation method.

Additionally, Soonawalla (2005) studied the accounting treatment made in US as opposed to Canada and UK, namely, the use of proportionate consolidation method to account for the JCEs is currently allowed in the latter two jurisdictions. The authors argued that the common assumption that the use of aggregated information (when the equity method is applied) regarding the JCEs does not mean a loss of information for the users. However, the authors demonstrated that from the valuation point of view, an information loss can be measured when earnings forecasting or value relevance is made.

In contrast, the study on the G4+1[3] Report, Milburn and Chant (1999) were not in agreement with most of the above mentioned authors. In their study on FASB, they concluded that the equity method was the most suitable method of accounting the interests in JCEs since the jointly controlled assets and jointly controlled liability did not meet the control criterion for full consolidation. A venturer cannot control a *pro rata* asset or *pro rata* liabilities; Milburn and Chant (1999: 3.13) argued that it is "wrong in principle for a venturer enterprise to reflect a *pro rata* share of a (corporate) joint venture's debt that is not a present obligation of the venturer enterprise." They conclude that proportionate consolidation is not the most appropriate method for reporting (corporate) joint ventures. Surprisingly, this position is the core rationale of the IASB's proposed changes to IAS 31 stated in Exposure Draft 9 – Joint Arrangements.

Unlike the various studies made in recent years in which the academic community has looked for the determinants for the accounting choice of the JCEs, the impact on the forecasting capacity derivates from the use of one or another reporting method, or the assessing of the quality of one or the other method, the main objective of this dissertation is to understand if there is a significant difference not only in the legal setting of a JCA and a JCE

[3] The Group of Four plus One (G4+1) was an informal working group composed of the setters of main world accounting jurisdictions: the United States, Canada, the United Kingdom, Australia and New Zealand. This group was disbanded in 2001.

but a *de facto* difference in the economic substance. We fill a gap in the accounting literature by focusing the discussion on the overall definition of joint arrangements.

2. JOINT VENTURES IN THE OIL AND GAS INDUSTRY

The technologies behind the exploration, development and production in deep and ultra deep waters are state of the art engineering. Since the first discoveries made in deep waters, oil and gas engineering for the production of oil has been quite sophisticated, namely the Floating, Production and Store Offloading (FPSO) vessels. Most of these have the capacity to produce over 1.5 million barrels and do the first treatment of the oil. The Kizomba A is the largest FPSO ever built and has been operated by Exxon Exploration Angola on the Angolan offshore; it is capable of storing and treating over 2.2 million barrels, with costs reaching almost 800 million dollars.

The oil and gas industry therefore demands large investments and comprises significant risks which go beyond the above mentioned cost of the FPSO. To be fully operational, the FPSO has two more stages: the UFL components (umbilical networking that links the various wells in the field) and the subsea system; this brings that total FPSO costs to over 3 billion dollars. Consequently, it is understandable that when undertaking such a venture, the oil and gas companies join their financial and technological efforts to spread the risks and ease their financial commitments. This confirms Hennart's (1998) understanding of why companies choose a joint arrangement as the business setting.

A. The Oil and Gas Industry

According to Feitten et. al (2000:1), "petroleum refers to crude oil and mineral gas or simply oil and gas. These are mixtures of hydrocarbons which are molecules, in various shapes and sizes, of hydrogen and carbon atoms found in the small, connected pore spaces of some underground rock formations. These petroleum reservoirs are generally thousands of feet below the surface. Crude oil and natural gas are believed to be the remains of plants and animals, most small marine life that lived many millions ago".

Currently, crude oil and natural gas play an important role in our day to day and are present in several aspects of modern life. According to The Economist Special Report of June 19, 2008[4], the world's past great achievements were based on energy, e.g. coal-fired steam power which led to the first industrial revolution, oil-fired internal combustion engines, the rise of electricity that dramatically improved the lives of the people in developed countries. In previous decades, energy – even oil - was cheap, (except during the 1970 oil crisis). However,

[4] http://www.economist.com/specialreports/displayStory.cfm?story_id=11565685

this has changed dramatically in recent years; oil is no longer cheap and there is real concern that oil supplies will not be able to meet the continuing growth in demand.

The market for energy is huge; the world demand currently represents a volume of 15 terawatts (A terawatt is 1,000 gigawatts, and a gigawatt is the capacity of the largest sort of coal-fired power station), in other words, a 6 trillion dollars a year business. According to John Doerr (The Economist, 2008) a venture capitalist who is involved in the industry, demand could reach 30 terawatts in 2050

In addition, the International Energy Agency estimated that in 2005, oil and gas would represent about 57% of the primary source of energy supply and 27% of the primary source of energy production. These figures illustrate the continued importance of the oil and gas industry to the world's economy.

B. The oil and gas industry

According to Feitten et. al (2000:5), the oil and gas businesses are typically divided in three distinct business segments or operations: upstream, middle stream and downstream.

The upstream operations or business usually corresponds to the exploration, development and production of hydrocarbons. By definition, these activities include the exploration of underground reservoirs of oil and gas, producing the discovered oil and gas using drilled wells through which the reservoir's oil and gas is brought to the surface and separated. In this phase, large investments are usually required in exploration (seismic, geological studies and drilling activities), development (which includes construction of oil infrastructures, such as oil and gas platforms, oil and gas pipelines, FPSOs, among others) and production facilities.

The middle stream operations or business, also called hydrocarbon processing operations, usually correspond to a phase where the crude oil refineries and gas processing plants separate and process the hydrocarbon fluids and gases into various marketable products. At this point, the crude oil or gas is processed in order to be ready for market consumption. In this phase, the main investments are made in refineries and LNG liquefaction plants. Like the upstream phase, the investments in this business are significant.

Finally, the downstream phase or business usually corresponds to the transportation, marketing and selling of the production resulting from the refinery process, i.e., diesel and

gasoline and residential and industrial gas. This phase is characterized by the existence of several gas stations either owned by an oil company or run by an independent dealer.

Some authors only recognize two main business segments in the oil and gas industry: the upstream and the downstream segments. The upstream segment is defined above, but the downstream segment also includes middle stream operations.

C. The ownership of resources in the oil and gas industry (Upstream Activities)

According to Gallun et. al (2001:8-12), ownership relates to two different rights to a given property, the right to use the property's surface in any legal way that the surface owner deems appropriate, and the right over resources that might exist beneath that property. The right to explore, develop and produce a mineral resource (an upstream activity) that may exist beneath a certain property is known as mineral rights. In the United States, Canada and Trinidad, an individual or a company can actually own these rights. In all other countries, the mineral rights are usually owned by the local governments.

Private ownership of the mineral resource

In the United States, Canada and Trinidad, where an individual or company owns a mineral right, this must be conveyed by deed (i.e. must be in writing according to the US statutes of frauds) in order to be legally in force. The diagram below summarizes the most common types of mineral ownership found in the US setting:

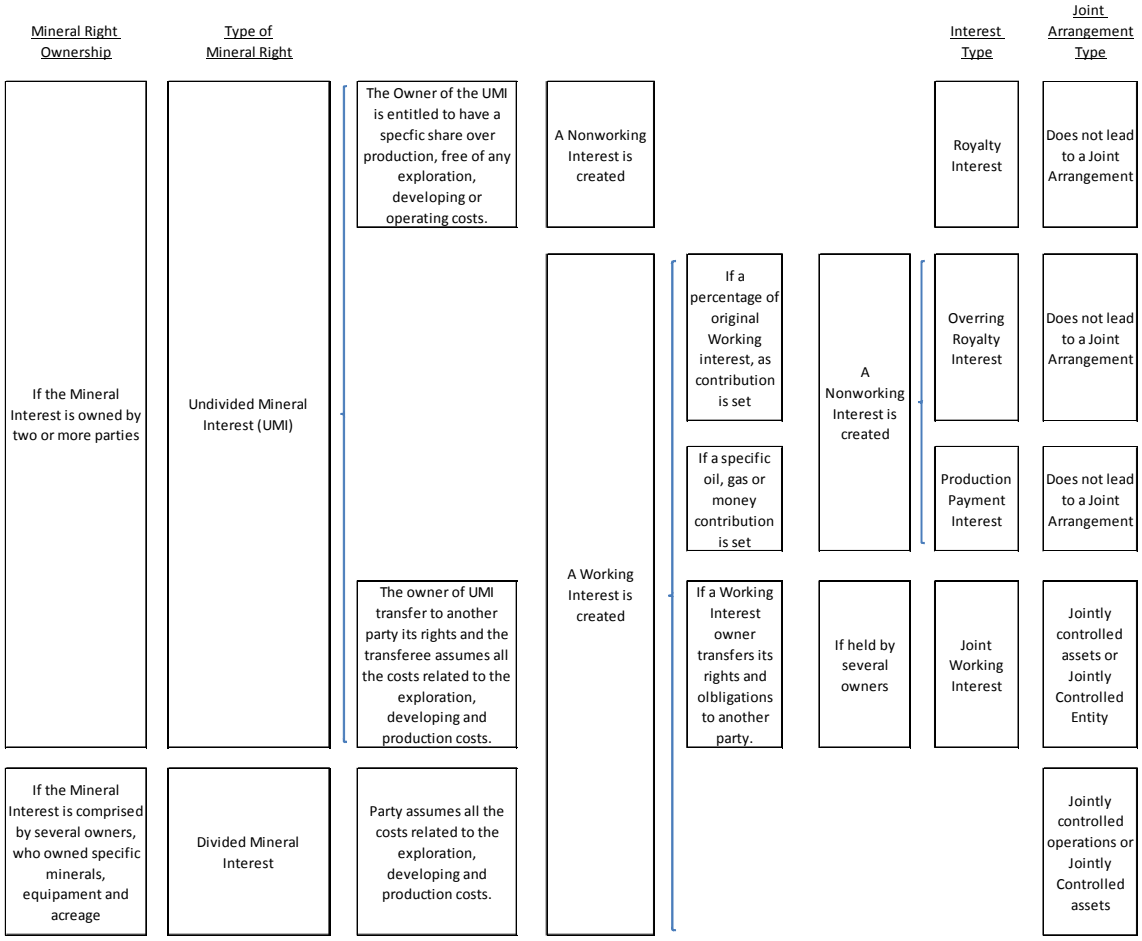


Figure 1 – The US setting

Usually the owner of a mineral right (an individual or a company) enters into a lease agreement where two basic types of mineral interest can be created: the royalty interest and working interest. In essence, when the owner of mineral rights enters into a lease agreement, the right to explore the mineral reservoirs and consequently develop and produce those reservoirs and if proven commercially feasible, is usually leased to a company that has the expertise and the manpower to exercise that right.

Thus, when a mineral right is leased by its owner, the lease agreement might define a clause where the owner is entitled to a specific share of the production, free of any exploring, developing or operating cost. In the oil and gas industry in this setting, the owner would be entitled to the crude oil or gas at delivery point. This entitlement is known as royalty interest. This interest is also referred to as non-operating or nonworking interest, since the owner has no responsibilities for exploration, development or production of the resource.

As mentioned above, the owner of the mineral right usually has a royalty interest when he/she enters into a lease agreement with another party. The other party in a lease agreement generally has the expertise to explore and develop the resources; this party is usually referred to as working interest owner. The working interest owner assumes all the costs related to the exploration and development of the reservoir and subsequent production, but only shares the revenue production after deduction of the royalty interest.

Additionally, a working interest can be either an undivided or divided interest. An undivided mineral interest occurs when there are several owners (co-owners) and the mineral produced is share in accordance with individual interest held by each owner. In contrast, a divided mineral interest exists when specific parties own specific acreage, minerals, or equipment.

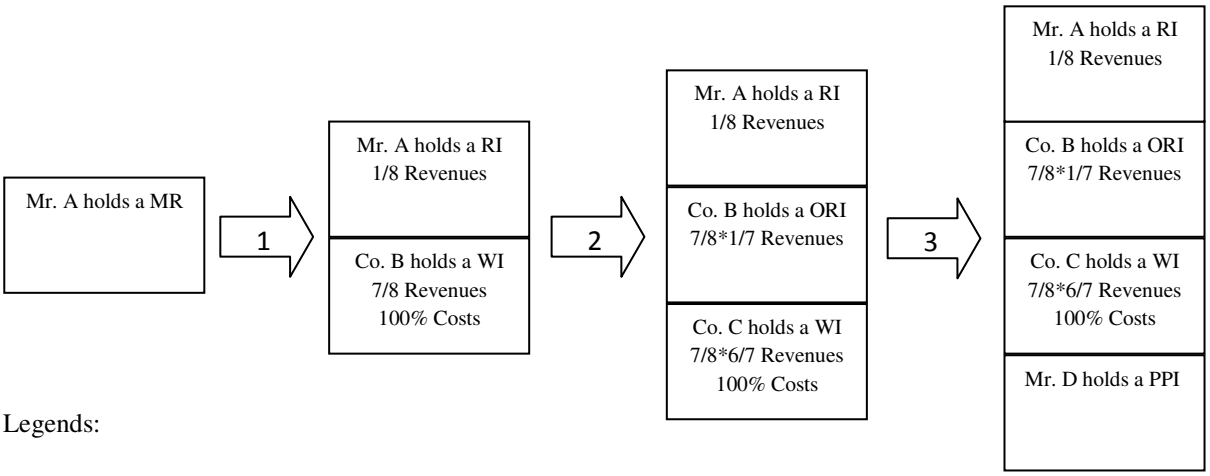
An undivided working interest can be owned by two or more parties, and when such ownership occurs it is referred to as a joint working interest. This type of joint arrangement is frequent in the oil and gas industry, namely in upstream activities, since it allows the companies to share the significant risk related to the oil and gas exploration. In this type of undivided interest, one of the parties is usually designated (or appointed) as Operator; the remaining joint owners are known as non-operators. In this setting, the Operator controls and manages the operations on behalf of all participants in this joint working interest. The Operator supports all the costs and then bills the non-operators, usually in advance (through cash calls), for these costs based on their proportional interest in joint working interest.

Two situations can occur when a holder of working interest transfers its rights to another party: the owner transfers the rights and is entitled to receive a share in revenue that is or will be generated by the working interest given. This revenue share when created from an existing working interest is termed Overriding Royalty Interest. This type of interest is considered a nonworking interest and is essentially very similar to a Royalty Interest. If this entitlement to share the revenue is limited to a specific volume of oil or gas money, or time, and after reverts back to the original interest, it is known as Production Payment Interest.

The following example illustrates these concepts, Gallun (2001:8-12):

Mr. A is owner of a mineral right (MR) – oil. Mr. A leased his property to Co. B and at this time retained a Royalty Interest (RI) of 1/8 of the revenues that will be generated from the sale of the oil. Co. B at the lease agreement signature holds a working interest (WI) on Mr. A's property. At this stage, Co. B is entitled to 7/8 of revenue and incurred 100% of costs

related to the working interest (i.e., exploring, developing and producing costs). Co. B transfers to Co. C its working interest and retains a share of the production. Now Co. C holds the working interest and Co. B an Overriding Royalty Interest (ORI) of 1/7 of the production. In order to finance the exploration and development phase, Co. C carves out (sells) a Production Payment Interest to Mr. D. The diagram below shows the holding flow of the parties involved:



Legends:

1 – Mr. A leases to Co. B;

2 – Co B transfers WI to Co. C and retains an ORI;

3 – Co. C sells a PPI to Mr. D for cash.

Figure 2: Ownership scheme in the US setting

The governmental ownership of the mineral right

As referred above, an individual or a company might own a mineral right in the United States and this also occurs to some extent in Trinidad and Canada. However, the mineral rights are usually owned by local governments in other countries. Therefore, the oil and gas companies are required to contact local government and agree on payments and other conditions necessary to authorize the oil and gas company to explore and produce oil and gas (reserves) in those countries.

In addition to cash payments which may include taxes levied on the oil produced, signature bonus and/or royalties, the governments usually also require that the oil and gas

companies make their investments by developing the country's social infrastructure, employing the local labour force or providing training to local personnel.

Governments usually negotiate with the prospective oil and gas companies in order to explore and develop their mineral rights (reserves); this leads to two different types of contract setting.

There are two main systems used by governments to associate to the oil and gas companies: the concessionary system and contractual system (Gallun, 2001).

The major difference between these two systems is the ownership of the oil and gas. In the concessionary system, a non-governmental entity is allowed the ownership of the mineral resources after the oil or gas is produced, whereas in a contractual system the government owns the mineral rights and retains the title of the mineral resource in all phases of production.

In the Concessionary system, like the contractual system, the ownership of the mineral resource remains with the government, but at some point in the production phase - usually at the delivery point - ownership is passed to the oil and gas company that operates a given contractual area. In this system, the oil and gas companies hold a working interest over the concession area, while the government holds a royalty interest (acting as Nonworking Interest owner).

The oil and gas company acting as working interest owner will assume all costs and risks related to the exploration, developing and producing phases, including the lack of compensation for unsuccessful prospection if no oil and gas are discovered in the concessionaire area. However, if a commercial reservoir is discovered, the title of all oil and gas produced in the concessionaire area will pass to the company at some point. In this system, the government holding the royalty interest usually collects royalties on the oil and gas produced as well as a front payment bonus and levies taxes on the oil and gas revenues generated by the companies and/or other duties.

The contract between the owner of the mineral right (the government) and the oil and gas companies is known as a concessionary contract or agreement. This contract usually creates a working interest (that will be held by the oil and gas company). In this system, the working interest owner is the national oil and gas company through which the government is usually actively involved. In some contracts, the share will be carried by the contractor through the exploration phase and the government will have the option to participate (up to

51% of the working interest) in the developing and production phase if any commercial reserve is discovered. The exploration costs incurred previously by the contractor are usually recovered by the government share in the oil and gas production up to its share in exploration costs.

There are two main instruments or contracts in the contractual system that are usually set to explore a mineral right: the Production Sharing Contract or Agreement (PSC or PSA) and the Service Contract. In a PSC contractual structure, there are two parties: the government and an oil and gas company or companies. The oil and gas company or companies are known as contractor(s).

This type of contract is typically characterized by the following provisions:

- An up-front bonus at signature date, which is commonly referred as signature bonus;
- A production bonus that is deemed to be paid when the production reaches a specific level;
- Some PSC may include a royalty provision;
- Allows the recovery of the investment made by the contractor through cost recovery mechanisms;
- May include governmental participation;
- Oil and gas is entirely owned by the government, consequently, the title of the oil produced and saved is not passed to the contractor;
- All assets acquired during the exploring, developing and producing phases are automatically owned by the government when they reach the country;
- Inclusion of capital uplifts provision;
- May include a domestic market obligation;
- The cost recovery process is limited to ring fence provisions.

One the most interesting features in this type of contract is the cost recovery process. The contractor (usually a joint venture) incurs large investments and risks exploring a specific contractual area but is allowed to recover these investments. This is recovered through a specific share of the oil production to which the contractor is entitled under the contract covenants; the ceiling for this is usually set between 60% and 70% of the oil production.

The contractual area is a concession area granted by the local government (and is known as block), in which oil and gas companies are allowed to explore, develop and produce oil and gas for a specific period of time. However, the oil and gas companies conduct a number of studies on the contractual area in the exploration phase, and when oil or gas is found in a drilled well (i.e. there may be a reservoir of hydrocarbons or gas) and estimated to be commercially feasible, it is declared a commercial well.

Following additional studies and drilling in this area, the area of the reservoir is established, and as long as volumes and quality of the oil or gas are in fact commercially feasible, the discovery of a commercial area in the contractual area is declared. This commercial area is known as field.

The PSC provisions for the cost recovery mechanism usually define a maximum ceiling of the production that can be used to recover costs previously incurred. This ceiling is known as cost oil and is computed as fixed percentage of the production in a given year. The PSC provision also defines what kind of expenditures can be recovered through the cost oil mechanism.

The remaining oil available after the cost oil has been used to recover the investment is known as profit oil. The profit oil, if any, is then shared between the members of the contractor group (joint venture) and the local government. In most cases, the government share is defined in the PSC provisions. This share can be fixed or scaled on the basis of production volume or another quantitative factor.

If the allowed expenditures are not fully recovered in a given year, under the PSC provision they may be carried forward to future years; however, if the maximum cost oil allowable exceeds the total eligible expenditures recovered, this cost oil becomes profit oil and is shared in accordance with the shares held by each member in the joint venture.

Another usual feature in the cost recovery process is the ring fence principle, i.e., a cost incurred in a specific field (commercial area) can only be recovered from the cost oil "produced" in this specific field. The ring fence provision applies to the developing and producing costs, since no commercial area was actually declared in the exploration phase, and consequently the exploration costs are not recovered by this commercial area.

The PSC provisions also define a cost recovery hierarchy: first producing costs are recovered, then developing costs, both limited by the ring fence principle, and finally the

exploration costs. Note the latter costs are recovered from any remaining cost oil from any field, after the recovery per field of all developing and producing costs.

The second type of agreement that may be found in the contractual system is a service agreement. A service agreement can either be a risk service contract or non-risk service contract. In a non-risk service contract, the contractor only provides services to support the oil and gas activities and the governments pay a fee that will cover all costs incurred by the contractor plus a fee for the expertise provided. In this setting, the contractor has no risk, i.e., if a commercially feasible field is not discovered, the contractor will be reimbursed for the costs incurred.

In a risk contract, the contractor bears all the costs and all the risk connected to the exploration, development and production phases. If no commercially feasible reserves are found, the contractor will bear all losses, otherwise the contractor will be unable to recover its costs. The features of this type of service agreement are quite similar to those of a PSC.

D. Joint Operating Agreements

Despite the legal title of the mineral resource or the system in which the oil and gas companies operate (concessionary or contractual), oil and gas companies usually join their financial, economic and technological efforts in the exploration of a concessionaire or contractual area in order to spread its risks and costs. Whether or not they are joined in a legal entity, the oil and gas companies pursue joint operations typically regulated through a joint operating agreement or similar agreement.

The oil and gas companies can be set as a joint venture in three legal forms: (a) joint venture of undivided interest; (b) legal partnership; (c) jointly owned corporation. A joint venture of undivided interest is the most frequent form of association between oil and gas companies. In this setting, a group of companies jointly holds an undivided interest and shares the cost and the eventual revenue proportionally to its share in that interest; no legal entity is formed. Companies in this setting are bound by a Joint Venture Agreement. Legal partnerships and joint owned corporations are very rare and are usually set either because national legislation requires these legal forms so that companies can operate, or where a local company should be set up for taxes reasons.

Despite a joint arrangement's legal form or the type of contract that supports the concession (lease agreement, PSC, services risk contract), companies that operate in an undivided interest establish their rights and obligations, as well as the way the oil and gas activities should be conducted through a Joint Operating Agreement (JOA) or similar contract. In a typical JOA, an Operator is unanimously appointed by the totality of the working interest owners; in most cases the Operator is the one with the largest interest percentage in the joint arrangement. The remaining working interests are known as non-operators. The Operator's main role is to manage the day-by-day operations on the concession.

The joint venture's key decisions, e.g. the area to be explored, kind of technology applied, setting the bidding outcome for the major vendor, etc., are decided unanimously by all the working interest owners.

Another important role of the Operator is to pay all the costs and re-bill the non-operators based on their share in the joint venture. In most JOA, although the Operator must pay all the costs, it is entitled to request advance payment from the non-operator for these costs. These advances are termed cash calls. The computation of the fund need is based on the cash outflow expected in a given period, usually the following month.

This section has provided an overview of the legal setting presented in the oil and gas industry. We have described the various types of ownership that can be formed and contractual arrangements that can be set for such ownerships, either in the private or the government setting, in order to demonstrate that the existence of a written agreement between the ventures is a deemed condition for establishing the joint control over the assets or entity. The joint control concept as opposed to the significant control concept should be the main determinant to establish the suitable accounting treatment of the joint controlled interest. (Gallun, 2001)

3. JOINT VENTURES ACCOUNTING

The accounting treatment for joint arrangements has been a significant issue among academics, practitioners and general accounting public. There is relative agreement on the accounting treatment to report the jointly controlled assets and operations for the users of the financial information i.e., it is currently accepted that the assets, liabilities, revenues and expenses in those joint arrangements must be reported in the holding company's financial statements based on their participation interest in that arrangement.

However, there is considerable discussion on which is the best method available to report the arrangements that are comprised by JCEs, i.e., the equity method or the proportionate consolidation.

The accounting literature defines four types of consolidation methods to account for the joint ventures: the equity method, the gross equity method and two alternative formats for the proportionate consolidation method. In the equity method, a reporting entity should recognize the investment in an associate as an asset and should initially measure it at cost in the venturer's balance sheet and subsequently adjust it in line with any change in the investee's equity. The reporting entity's share in the net income or loss reported in the investee's income statement should be recognized as income or expenses in the investor's income statement.

In the United Kingdom, the reporting entities are required to apply the gross equity method if certain thresholds are exceeded. According to the Financial Reporting Standard 9 – Associates and Joint Ventures (FRS 9) –, the gross equity method is "a form of equity method under which the investor's share of the aggregate gross assets and liabilities underlying the net amount included for the investment is shown on the face of the balance sheet and, in the profit and loss account, the investor's share of the investee's turnover is noted."

Proportionate consolidation is a method where the reporting entity shows its share in a JCE in its balance sheet and profit and loss statement line-by-line, rather than an investment in a single line in the balance sheet and the profit and loss statement. In accordance with IAS 31 – Interests in Joint Ventures, the reporting entity can use two alternative formats to apply the proportionate consolidation method: a reporting entity may combine its share in the assets, liabilities, income and expenses in the JCE with similar items in its own financial statements on a line by line basis; or it can report its share in assets, liabilities, income and expenses of the JCE separately as a line item in its financial statements.

The following section describes the accounting treatment of the joint ventures in the main jurisdictions, namely the countries that have already adopted the International Financial Reporting Standards issued by IASB, United States of America, United Kingdom and Canada.

A. International Financial Reporting Standards (IFRS)

Under the IFRS, the joint venture topic is discussed in the International Accounting Standard 31 – Interests in Joint Ventures (IAS 31) which defines a joint venture as a "contractual arrangement whereby two or more parties undertake an economic activity that is subject to a joint control". IAS 31 therefore states that there are two main characteristics common to all joint ventures: (a) two or more ventures are bound by a contractual arrangement; and (b) the contractual arrangement establishes a joint control. The existence of a contractual arrangement precludes the very existence of a joint venture, as IAS 31 states unequivocally in paragraph 9: "Activities that have no contractual arrangement to establish joint control are not joint venture for the purposes of this standard." Thus, to meet the definition of joint venture under IAS 31, an activity must be based on a contractual arrangement that makes joint control mandatory.

Joint control is defined under IAS 31 as a contractual arrangement for "sharing of control over an economic activity, and exists only when the strategic financial and operating decisions relating to the activity require the unanimous consent of the parties sharing control." The joint control concept is different from the control concept stated in International Accounting Standard 28 – Investments in Associates (IAS 28), which defines control as: "the power to govern the financial and operating policies of an economic activity so as to obtain benefits from it." According to IAS 28, an associate "is an entity, including an unincorporated entity such as a partnership, over which the investor has significant influence and that is neither a subsidiary nor an interest in a joint venture".

Additionally, the definition of significant control under IAS 28 states that a "significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies."

According to paragraph 7 of IAS 28, it is presumed that there is a significant influence by an investor, when the investor:

a) Has a representation on the board of directors or equivalent governing body of the investee;
b) Has a participation in policy-making processes, including participation in decisions about dividends or other distributions;
c) Material transactions are made between the investor and the investee;
d) Managerial personnel are interchanged; or
e) Provides essential technical information.

Under the IFRS, the current International Accounting Standard 31 – Interests in Joint Ventures (IAS 31) defines three main forms of joint ventures: jointly controlled operations, jointly controlled assets and jointly controlled entities.

A jointly controlled operation (JCO) is defined under IAS 31 terminology as the use or assignment of certain assets or resources in a joint operation. In this scenario, the asset or resource ownership belongs to the venturer (or sponsor) and it is used in a specific operation, defined under a joint venture operating agreement, which usually establishes the assets and resources to be used, and the revenue splits among other conveyances. No different accounting treatment is considered in this type of joint arrangement, since the assets and/or resource are owned by the venturer and consequently accounted for in the venturer's financial statement; the only issue arising from this form of joint arrangement would be how the venturers share the operation's revenue as no legal entity is usually established for this type of joint arrangement.

The jointly controlled asset (JCA) is the second type of joint venture classification referred in IAS 31. In this type of joint venture, assets and other resources are made available to several entities that are jointly used for a common operation or used among ventures. In this joint venture setting, the venturers share the risk and rewards of the asset, but cannot unilaterally use or dispose the underlying assets with the approval of the other venturers. IAS 31 only requires each venturer to report in their financial statements the proportional interest on these assets, classified according to their specific nature, as well as any liability that it has incurred jointly, income from the sale or use of its share in the asset. No further consolidation adjustments or procedures are required, since the assets, liabilities, income and expenses are directly recognized in the venturer's financial statements.

The jointly controlled entity (JCE) is the third type of joint venture classification mentioned in IAS 31. In this type of joint ventures, the venturer has formal and legal control

over the joint venture since this type of arrangement is set through a separate and legal entity, either by forming a partnership or a corporation (mostly in the US) or through the specific legal entities available in European Union legislation, e.g. the European Economic Interest Grouping (EEIG). The proportionate consolidation method is the main accounting and reporting treatment under IAS 31 for consolidation purposes to account for the joint controlled entities; alternatively, the equity method may be used.

However, the International Accounting Standards Board (IASB) issued the Exposure Draft 9 – Joint Arrangements in September 2007. This Exposure Draft (ED 9) will supersede the current IAS 31 – Joint Ventures and SIC 13 – JCEs – Non-Monetary Contributions by Ventures.

The Board released the ED 9 on September 2007 and kept it open for comment until January 2008. The Board received almost 150 letters of comment, and the majority of those responses were contrary to any change to IAS 31. Most of the respondents have stated several concerns and reserves regarding the new features of ED 9, namely:

- The abandonment of the proportionate consolidation will not converge with US GAAP, since FASB allows the use of proportionate consolidation in the industries which the practice dictates the generalized use of this method, such oil and gas industry and construction (Accounting Interpretation 2 and EIFT – issue No. 00-1).
- It is not clear that the use of the equity method brings more quality to information reported on the joint arrangements.

According to the Basis for Conclusion on Exposure Draft ED 9 Joint Arrangements, the Board main objective was to suppress two aspects in IAS 31 which in their opinion will ensure high quality reporting on the joint arrangements: (a) the form of the arrangement is the primary determinant of accounting and, (b) the option between the use of equity method or proportionate consolidation to account for their JCEs, for consolidation purposes.

The ED 9 also aimed to converge with the US GAAP. The ED 9 was supposed to be in line with Short-term Convergence Project with FASB. One of the reasons that led the IASB's choice to withdraw the entities' option to account for the JCEs through the proportionate consolidation method was based on the accounting treatment established under the US GAAP. In fact, the joint arrangements, namely the JCEs are accounted for by the equity method in the US GAAP, although the proportionate method may also be used for

consolidation purposes for specialized industries, specifically in the oil and gas and construction sector.

In addition to the two aforementioned changes proposed, the concepts behind the proposed IFRS are not different from those stated in the actual IAS 31; although the ED 9 provides new terminologies, i.e. "joint venture" changes to "joint arrangements", in substance the concepts are the same. The ED 9 also defines three types of joint arrangements: joint operation, joint asset and joint venture. These three levels would be equivalent in a certain way to the former three levels defined in IAS 31.

Thus, the Board introduces these two main changes in the scope of ED 9. This means when the proposed IFRS come into force, the form of the arrangement will no longer be the primary determinant of accounting and the proportionate consolidation method cannot be used to account for joint controlled entities (joint ventures in the proposed IFRS).

The Board has concluded that allowing the entities the option to account for their interest in JCEs through the proportionate consolidation could lead to the recognition of assets that are not actually controlled by the entity and liabilities that are not present obligations to the entity. The key argument is that the assets and liabilities jointly controlled do not meet the definition of an asset and a liability defined in the framework. Accordingly, the framework defines an asset in paragraph 49 as a "resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity", while a liability is defined as "a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits."

B. United States of America

The authoritative literature in the US GAAP on joint ventures accounting is presented in the APB Opinion 18 – The Equity Method of Accounting for investments in Common Stocks (APB 18), and also in EFTI Abstract issue No. 00-1 – Investor Balance Sheet and Income Statement Display under the Equity Method for Investments in Certain Partnerships and Other Ventures (EFTI 00-1).

APB 18 defines that a 'corporate joint venture' is a "corporation owned and operated by a small group of business (the "joint ventures") as a separate and specific business or project for mutual benefit of the members of the group. A government may also be a member

of the group. The purpose of a corporate joint venture is frequently to share risks and rewards in developing a new market, product or technology; to combine complementary technological knowledge; or to pool resources in developing production or other facilities. A corporate joint venture also usually provides an arrangement under which each joint venturer may participate, directly or indirectly, in overall management of the joint venture. Joint venturers thus have an interest or relationship other than as passive investors."

APB 18 clearly distinguishes a joint venture from an associate. In the US GAAP, the key distinguishing feature is the role of the venturer/investor in the entity.

While the venturer must not act as passive investor in an entity considered as a corporate joint venture, the venturers in a typical joint arrangement are therefore deemed to actively act in main business decisions in the joint arrangement.

In an associate the investor only has a significant influence in the business of the entity, i.e., the investor will be able to appoint some directors and officers and can have some power to influence the main decisions, though not absolute power; it typically takes a passive role in the conducting of the business. In most of the case, the interest is held for investment purposes and by definition its role is therefore passive.

However, APB 18 only focuses on the joint ventures that are established as incorporated legal entities (corporations), while the unincorporated legal entities (partnerships) and other non-entity arrangements (i.e., the IFRS equivalent to the JCO and JCA) are accounted for as undivided interests under the US GAAP.

Statement of Position 78-9 Accounting for Investments in Real Estate Ventures, issued by AICPA Accounting Standard Executive Committee, defined an 'undivided interest' as "an ownership arrangement in which two or more parties jointly own property, and title is held individually to the extent of each party's interest".

Additionally, the IASB paper "Comparison of IAS 31 with US GAAP" states that "in accordance with EITF 00-1 when the investor (i) holds an undivided interest in each asset, (ii) is proportionally or severally liable for each liability, and (iii) no separate legal entity exists, the investor recognizes on a proportionate basis those assets and liabilities in its balance sheet and the related results of operations in its income statement."

Thus, APB Opinion 18 determines that it is mandatory to account for interests in corporate joint ventures (paragraph 5) either by the cost method or by the equity method.

However, FASB has issued an EFTI Abstract issue No. 00-1 clarifying that certain entities may account for their investments in joint ventures by the equity method on a proportionate basis.

The conclusions presented in EFTI 00-1 mention that "the Task Force reached a consensus that a proportionate gross financial statement presentation is not appropriate for an investment in an unincorporated legal entity accounted for by the equity method of accounting unless the investee is in either the construction industry or an extractive industry where there is a longstanding practice of its activities limited to the extraction of mineral resources (such as oil and gas exploration and production) and not if its activities involve related activities such as refining, marketing or transporting extracted mineral resources."

Thus, the conclusion reached by the FASB task force clearly states that exemption given to the construction or extractive industries derives only from the tradition in those industries to account for their investments in such joint ventures (unincorporated entities or undivided interests) by the equity method on a proportionate basis (proportionate consolidation method).

Thus, according to US GAAP the joint arrangements are accounted for as follows:

- Corporate joint ventures (IFRS equivalent to the JCEs) are required to be presented as an investment in the Balance Sheet and accounted for by the equity method, except for unincorporated legal entities in specialized industries, such as the construction or extractive industries, which are allowed to use the equity method on a proportionate basis (IFRS equivalent proportionate consolidation method).
- Undivided interest (equivalent to the JCA) - a venturer recognized in its financial statement the share in the assets that is jointly controlled as well as the liabilities for which the venturer is accounted or jointly responsible.

C. IFRS versus US GAAP

The major differences between the IFRS and US GAAP are as follows:

- The contractual arrangement is usual but is not necessary to meet the definition of joint venture;
- Joint control is not a required feature in the definition of a joint venture, but the venturer is defined as not a passive investor;

– APB 18 limited the definition of joint ventures to corporate joint ventures, i.e., does not consider the jointly controlled operations and assets as joint arrangement. These arrangements are included in the undivided interest definition.

Additionally, the IASB paper "Comparison of IAS 31 with US GAAP" presents a table that provides a comparison of accounting treatments for joint ventures in accordance with IFRS and US GAAP:

	Incoporated Entities	Unincorporated Entities		Joint Controlled Assets or Operations and Undivided Interests	
		Specialised Industries	Other Industries	Real Estate under Joint Control	Others
US GAAP	Equity Method (APB 18, par 1)	Proportionate Consolidation (EIFT 00-1)	Equity Method (EFIFT 00-1)	Equity Method (EFIFT 00-1/SOP 78-9, par 11)	Share of Assets and Liabilities (EIFT 00-1)
IAS 31	Equity Method or Proportionate Consolidation	Equity Method or Proportionate Consolidation	Equity Method or Proportionate Consolidation	Share of Assets and Liabilities	Share of Assets and Liabilities

D. United Kingdom

The authoritative literature in the UK GAAP on joint ventures accounting is presented in the Financial Reporting Standard 9 – Associates and Joint Ventures (FRS 9), which defines a joint venture as "an entity in which the reporting entity holds an interest on a long term basis and is jointly controlled by the reporting entity and one or more ventures under a contractual arrangement."

Additionally, FRS 9 also defines joint control as "a reporting entity (that) jointly controls a venture with one or more other entities if none of the entities alone can control that entity but all together can do so and decisions on financial and operating policy essential to the activities, economic performance and financial position of that venture require each venturers' consent."

The UK setting for the joint ventures accounting is quite similar to the US approach as the UK definition of the joint venture clearly states that if the joint arrangement does not result in a legal entity, this arrangement is not considered a joint venture, since these arrangements will in essence be no more than a cost or risk sharing means of carrying out a process in the venturers' trades or business, rather than its own trade or business.

The UK GAAP also distinguishes the concept of joint control from the significant influence concept, stating in RFS 9 – Associates and Joint Ventures, par. 23 " an investor's joint control of its joint venture is a more direct form of influence than the significant influence exercised over associate…".

In the UK GAAP setting, the major difference between the two concepts is the veto power embodied in the legal structure of the joint venture and the significant influence to which the venturer is entitled in the major decisions in the joint venture affairs, e.g. setting policies, high level strategic decisions, and the appointment of the Board and management members, among others.

Therefore, according to UK GAAP the joint arrangements are accounted for as follows:

- Joint ventures (IFRS equivalent to the JCEs) must be presented as an investment in the Balance Sheet and accounted for by the equity method; if some thresholds are exceeded, the reporting entity is required to present the investment in its financial statement by the gross equity method;
- Joint arrangements that are not an entity (equivalent to the JCA or operations) - a venturer recognizes in its financial statement the share in the assets that is jointly control as well as the liabilities for which the venturer is accounted or jointly responsible.

Additionally, UK GAAP recognizes that some arrangements can appear to be a joint venture (i.e., set as entity), but are essentially entities that carry out the ventures' main business but do not in fact conduct a business on their own. In these cases, UK GAAP defines that the reporting entity holding this type of investment must account directly for its part of the assets, liabilities and cash flows held in the said investment.

Therefore, the main accounting determinant in UK GAAP for choosing the joint arrangement accounting treatment is whether or not the arrangement is actually a business.

If the investment is a joint venture and qualifies as business, it should be accounted for by the gross equity method (an associate would be accounted for by the equity method). If the joint venture does not qualify as a business, FR 9 determines that the reporting entity should account directly based on its participating interest in the arrangement, the assets, liabilities and cash flows.

E. Canada

The Canadian GAAP, Section 3055 – Interests in Joint Ventures (CICA Handbook, 2000) requires the use of proportionate consolidation as the mandatory reporting method to account for the interests in joint ventures and does not allow the use of the equity method.

Additionally, Section 3055 also requires the venturer to disclose the following information related to its interest in joint ventures:

- current assets and long-term assets;
- current liabilities and long-term liabilities;
- revenues, expenses, and net income;
- cash flows resulting from operating, financing, and investing activities; and
- the venturer's share of any contingencies and commitments when the venturer is contingently liable for the other venturers' shares of the joint venture's liabilities.

There are currently no significant differences between the Canadian GAAP and IFRS since the current IAS 31 has the option between the proportionate consolidation and the equity method and does not pose significant issues.

CICA makes the application of the IFRS by 2011 mandatory and recognizes that the proposed changes (ED 9) will “result in significant change from present requirements if IASB eliminates the proportionate consolidation method.” (CICA, 2009:44)[5]

[5] http://www.cica.ca/ifrs/ifrs-transition-resources/docs-&-files/item2417.pdf

4. CASE STUDY

A. Introduction

As referred previously, the aim of this dissertation is to establish whether a jointly controlled asset and a JCE are similar in economic terms and consequently argues that there is no reason for a differentiated accounting treatment of these two situations for consolidation purposes.

In order to ascertain the merit of this proposition, a case study was made in one the world's largest oil and gas groups, and specifically in Angola where it has a significant operation and holds both JCA and JCEs.

In order to accommodate its interests in Angola, the group formed various subsidiaries to hold the different concessions and JCEs.

Our case study focuses on two of these subsidiaries: one which includes several PSA concessions and another which includes an investment in an JCE.

We begin by describing and analyzing the Angolan legal framework and then analyze the legal background of a PSA Concessions held by the group, namely focusing on the characteristics and features of the Joint Venture Agreement and also on the legal background of the JCE by analyzing its by-laws. In both cases, our focus is directed to the decision making and voting process within these two arrangements. We then describe how the group accounted for these two arrangements. Finally, we demonstrate that these two different legal situations have the same economic substance; we therefore conclude that there is no reason to establish a different accounting treatment between the JCA (under the PSA) and the JCEs (under the bylaw).

B. The Angolan Legal Framework on the Oil and Gas Industry

Oil Activities

Number 1 of article 12 of the Constitution of the Angolan Republic states that "All natural resources existing in the surface and beneath, in the internal and territorial waters, on the continental shelf and in the exclusive economic area, shall be deemed property of the State which will determine the conditions for its use, developing and exploration."

Therefore, in the Angolan legal setting, mineral rights are owned by the State on behalf of its people, and hence private ownership of the mineral resources is not permitted.

This Constitutional principle was enacted in common law by Law 13/78, of August 26 (Law 13/78), which regulated the oil and gas concessions in Angola until the new legal framework for the oil and gas activities came into force on October 4, 2004 with Law 10/04.

The main feature of Law 13/78 was the creation of SONANGOL – Sociedade Nacional de Combustiveis de Angola (SONANGOL), the national oil and gas company; but it also defined and regulated the following:

- The assignment of Angolan mineral rights (prospection, exploration, development and production) to SONANGOL – Sociedade Nacional de Combustiveis de Angola (SONANGOL);
- The management of the oil and gas operating concessions, which was assigned to SONANGOL;
- Allows SONANGOL to associate to foreign oil and gas companies with a recognized technical, financial and good standing in order to explore and produce hydrocarbons.

Additionally, Law 13/78 established three forms in which SONANGOL and the foreign companies might associate: establishing a legal entity under Angolan Commercial Code, establishing joint ventures (set as an entity) or setting a sharing production agreement.

The existing concessions at the time of independence became joint ventures (JCEs); after independence, new concessions were granted through the PSA.

As referred before, the management of the oil and gas concessions in the Angolan territories was assigned to SONANGOL. Thus, SONANGOL was vested with those powers and acts as concessionaire (also acting as a sector regulator).

However, Law 13/78 also allowed SONANGOL to act as the Exploration and Production Company (E&P Company).

The assignment to SONANGOL of the mineral rights of a given concessionaire area is made through a Concession Decree, which was a legal instrument issued by the Angolan Government under Law 13/78.

The Concession Decrees regulate the oil and gas operations in a given area and provide the Concessionaire (SONANGOL) with the power to associate to oil and gas companies to prospect, explore, develop and produce oil in a given area.

The Concession Decree usually includes the following covenants:

- The Concession area;
- The Concession duration period, which is the same as the period defined in the PSA (PSA);
- Government authorization to SONANGOL (acting as the concessionaire) to sign the PSA;
- The parties will enter in the PSA;
- Several annexes with the description of the concession area, map and the tax, cambial and customs regime.

While the Concession Decree is the legal instrument used by the Government to assign a mineral right in a given area to the Concessionaire (SONANGOL), the PSA (PSA) is a contract between SONANGOL (on behalf of the Angolan Government) and the oil and gas companies (known as contractor).

Originally, the first concessions granted in Angola after independence, the PSAs, were published in Official Journal of the Republic; however, subsequently, the signed PSA became confidential and are no longer available to the public.

The PSA clauses under the Angolan Concessions are not different from the standard clauses described above.

Thus, the PSA is a contractual relationship established between the contractor (usually comprised by a group of oil and gas companies, set up as a joint venture) and SONANGOL (in its power as Concessionaire).

The PSA is different from a Joint Operating Agreement. While the former regulated the relationship between the contractor and the Concessionaire, the latter regulated the relationship between the ventures in the arrangement.

The main features in the Angolan PSA are as follows:

- Definition of concession area, contractual area and development area;
- Definition of the cost structure: block, development area (field) and well;
- Allowance of unitizations between fields, if more economically feasible;

- Definition of the concession phases: exploration, development and production;
- Obligation to set a joint account in order to record all the common costs incurred in joint operations;
- Definition of cost-oil and profit-oil;
- Definition of the recovery cost process;
- Establishing the ring fence concept for cost recovery purposes;
- Definition of eligible cost for recovery purposes;
- Definition of how the profit is shared, i.e., SONANGOL is entitled to have a share in oil production, free of any exploring, developing or operating cost, while the remaining production is shared between the partners of the joint venture based on its interest participation;
- Definition of the mineral resource ownership; until its production the oil is owned by the State, and thereafter, the produced oil ownership is transferred at the delivery point, based on the production sharing entitlement;
- Contractor's obligations under the PSA: signature bonus; commercial declaration bonus; social and charity bonus;
- Definition of the rents to be paid for the use of the surface by the contractor in its operations;
- State ownership over all fixed assets acquired by the joint venture, for the oil and gas operations under the concession.

The concessions granted in Angola are essentially considered an undivided mineral interest which is assigned to SONANGOL through a Concession Decree. In this phase, SONANGOL hold a full working interest on the concession area.

Additionally, the same Concession Decree authorizes SONANGOL, while acting as Concessionaire, to associate with oil and gas companies in order to exercise its mineral right. The PSA, as referred above, is the legal instrument by which SONANGOL associates with other oil and gas companies.

The PSA is the legal instrument by which SONANGOL transfers its mineral rights to the contractor. At this stage, the companies comprising the joint venture will hold a working interest in an undivided mineral right (concession area), while SONANGOL becomes a royalty interest holder.

However, the profit oil sharing mechanism within the PSA creates a nonworking mineral interest because the Concessionaire is entitled to a share in the production, free of any cost associated to this production. Recalling the concepts referred early, at this stage SONANGOL will hold a royalty interest as it has no responsibilities for the exploration, development and production of the resource.

The remaining share held by the partners of the joint venture will be considered as normal working interest.

Thus, the Angolan setting to explore, develop and produce its mineral resources is a mix of the two previously mentioned models – the contractual system and the concessionary system. Although the main legal instrument used is the PSA, and therefore the Angolan model would be based on the contractual system, the Angolan PSA usually has a provision in which the mineral resource title is transferred to the partners (and to the concessionaire) at delivery point, which is the main feature of the concessionary system.

Gas Activities

On October 3, 2007, Decree Law no. 10/07 (DL 10/07) was published in the Official Journal of the Republic of Angola, approving the implementation of the Angola LNG Project and establishing its legal framework.

According to DL 10/07, the Angola LNG Project is a large project which aims to use for commercial purposes, the associated and non-associated (gas reserves to be discovered or not connected to an oil producing field) gas produced on the oil production fields. The associated gas is currently used in the oil production process (gas injection) or burnt.

According to the official web site of the Angola LNG Project[6], "The Angola LNG Project will gather associated gas (AG), in water depths of up to 1500 meters from the following producing blocks: Block 15 (ExxonMobil); Block 17 (TOTAL); Block 18 (BP); Blocks 0 and 14 (Chevron); Future Blocks (TBD - Ultra deep water blocks).

The Angola LNG Project will also develop previously discovered non-associated gas fields in Blocks 1 and 2 to supplement the gas (AG) produced with oil.

Gas production from these Blocks will be transported by (3) high-pressure pipelines to the LNG plant onshore for conditioning and extraction of Natural Gas Liquids (NGLs) before liquefaction to LNG."

[6] http://www.angolalng.com/project/offshore.htm

Additionally, it states that "the first Liquefied Natural Gas (LNG) train located in the Zaire province (near the city of Soyo) will have:

- Nominal LNG capacity of 5.2 million tones/year;
- Storage for LNG, Liquefied Petroleum Gas (LPG) and Condensate;
- Loading jetty to accommodate 145,000 to 205,000 cubic meters LNG ships."[7]

To meet its objective, the Angolan Government defined through DL 10/07 that the project would be governed by an investment contract which was signed by the oil and gas companies (the investors) that at that time hold reserves of associated gas in their oil producing fields.

The project, according to the DL 10/07, was to be set in three legal entities:

(i) Angola LNG Ltd., in which the investors hold their investment, is responsible for executing the Angola LNG project, including the collection of the LNG and NGL revenues;

(ii) OPCO – Sociedade Operacional Angola LNG, S.A., a Corporation set up under Angolan law, which will perform the operations related to the onshore and offshore facilities, on behalf of Angola LNG, Ltd., under the provisions of an operational service contract that will be made with Angola LNG, Ltd..

(iii) SOMG – Sociedade de Operações e Manutenção de Gasodutos, S.A., a Corporation set up under Angolan law, which will perform the operations related to the associated and non-associated gas pipeline network, on behalf of Angola LNG, Ltd., under the provisions of an operational service contract that will be made with Angola LNG, Ltd..

The exploration, development and production of LNG and NGL have different legal features from the exploration, development and production of oil crude.

C. The group's legal setting in Angola

As mentioned above, the group set up various subsidiaries in Angola in order to explore and develop the oil and gas reserves which are the activities governed by a specific PSA and by a Joint Operating Agreement where the relationship between the members of the Contract Group are defined.

[7] http://www.angolalng.com/project/onshore.htm

While the PSA is the legal document that bound the Contractor Group to the Government (represented by SONANGOL, as concessionaire), the JOA is a private contract between the members of the Contract Group.

The covenants usually included in the Angolan Joint Operating Agreements are very similar to those referred earlier in this dissertation and were based on the international standards for this type of contract.

The Joint Operating Agreement has a unique setting of rights and obligations to be met both by the Operator and non-Operators.

The rights are essentially those of disposing of the petroleum produced in the contract area, while its main obligation is the payment of the cash call made by the Operator to the non-Operators based on their participating interest in undivided interest defined by the PSA.

However, the JOA that we accessed establishes that the oil activities are governed by a Joint Operating Committee.

This committee is comprised by a representative of each participating interest in the Contract Group and its objective is to "exercise overall authority, supervision and control of all matters pertaining to the Joint Operations, subject to the provisions of (this) Agreement and the PSA."

The Joint Operating Agreement usually establishes several approval levels (i.e., the aggregated participating interest) for different types of decisions.

Thus, only 59% of the vote interests are deemed necessary for a specific type of decisions made by the Joint Operating Committee, while other types of decisions would require 75% of the vote interests.

However, the voting procedures within the Joint Operating Agreement define that certain types of decisions call for 100% of the Contract Group members to vote in favor. The Joint Operating Agreement defines those decisions as "significant matters".

The Joint Operating Agreement specifically defines which decisions require the unanimous consent of all parties in the Contract Group:

- Work Programs and Budgets and amendments;
- The declaration of a commercial discovery, and
- The delimitation of any Development area

The Joint Operating Agreement also makes unanimous consent of all parties mandatory for the following decisions:

- Relinquishing the PSA;
- Surrendering all or any part of the Contract Area;
- Determining Contractor's position concerning any Amendment of the PSA;
- Amending the JOA; or
- Extending the Exploration period of the PSA.

Another matter that indirectly calls for unanimous consent from the members of the Contractor Group is the assignment of a participating interest held by one member to another member or party other than an affiliate. The Joint Operating Agreement covenants require that all other members in the Contract Group either consent with the assignment proposed or exercise the right to have this interest assigned.

As Operator and under the rules of the Joint Operating Agreement, all the expenses incurred must be funded by members of the Contractor Group based on their share in the agreement; this is usually done through a cash call.

A cash call is a cash advance, the amount of which is based on the estimated spending required over the next two months, issued by the Operator to the non-Operators partners in joint venture.

In addition to the monthly cash call, the Operator of each concession also issues a billing statement which details all the spending actually incurred in the previous month and the year-to-date spending. The billing statement, detailed or not, usually identifies the block and field where the expenditure was incurred as well as the type of expenditure, i.e., made in the exploration, development or production phase.

The aforementioned distinction plays a paramount role since the PSA's cost recovery process is based on the "ring fence" principle, i.e., each partner can only "use" the oil produced in a given field to recover its investment made in this same field through the cost-oil.

Finally, each partner in the PSA Concession is individually entitled to its part in the cost-oil and the profit-oil generated in the concession area which are accounted for in its consolidated financial statements.

While no legal entity is formed in the oil and gas production concessions but only a contractual arrangement between the oil companies, a legal entity is formed by the oil and gas companies in the gas production in order to carry out their operations.

Unlike the PSA Concessions, the JCE is governed by the Commercial Common Law which establishes the existence of a Bylaw (and sometimes also defines a Shareholders' Agreement), which specifies decision-making and voting procedures.

A Bylaw usually establishes a Board of Directors, while the Shareholders Agreement establishes other committees such as the Audit Committee which is comprised by a representative of each participating interest in the company.

In our case study, we observed that the joint interest was formed as an incorporated entity and the Board of Directors is therefore the main governance body and major decision maker.

According to the Bylaw we analyzed, a unanimous decision is required from Board members on the following matters:

- Any change in the scope of project;
- Any change in the company's financial structure;
- Approval of investments over a specific threshold.

Unanimous consent from all Board members minus one vote (91% of all affirmative votes) on the following decisions:

- Settlement of legal or civil claim over a specific threshold;
- Declaration of dividends;
- Repurchase of company shares.

All other decisions are passed with 80% of the affirmative votes by Board members. These include:

- Approval of the company's annual activity plan and budget;
- Appointment, suspension or exoneration of any company officer or any management member;
- Formation of committees to support Board's decisions;
- Appointment of solicitors with specific powers to represent the company ;

In addition to establishing the role and powers of the Audit Committee, the Company's Shareholders Agreement also established the setting of Subject Matter Experts (SMEs). This committee was formed to support the Board in different the areas such as tax, credit, commercial, legal matters, etc. The decisions made by these committees are not required by company's corporate governance and are a consultative body by nature;

The Board also formed another two committees: the Strategic Review Committee (SRC) and the Consultative Committee.

These committees are consultative and have no decision-making authority on their own. The Board has exclusive decision-making powers.

D. Differences between the concession under PSA (JCA) and JCE

The major differences we observed[8] between the PSA (JCA) and JCE setting are as follows:

- In the concession under the PSA (which governs the relationship between the government and individual ventures), the Joint Operating Agreement is a legal contract which governs the relationship between the venturers; in the case of JCE, the partners have become part of a legal entity;
- Each venturer in PSA Concession incorporates separately and no legal entity is formed;
- Costs are funded via cash calls in PSA Concessions, while funding in JCE (an incorporated company) is obtained by the issuance of shares;
- In the PSA Concessions, bank accounts for paying joint costs are in the name of the Operator alone and only operator employees are signatories to those accounts; in JCE, all bank accounts are in the company name and legal representatives appointed by the Board are signatories;
- Each partner in a PSA Concession is entitled to sell crude or gas individually in their own name and retain the proceeds in their own account, not in a joint account;

[8] We would like to thank to Thomas Mitro, financial consultant for the oil and gas industry, for his inestimable help and insights on the main differences between a PSA and a JCE.

- Each partner is responsible for paying their own petroleum and income taxes in Angola, while in JCE, tax liability lies with the company;
- Contracts and service agreements are usually in the name of Operator and the other JV partners are not counterparties to those agreements:
- No debt would be in the name of the JV or even the operator but would be obtained separately by individual JV partners to support their share in the cash calls. In an incorporated entity, as per Shareholder Agreement, any debt can be obtained in its name and the company and not its partners will be liable for such debts;
- In a PSA Concession, the joint assets are realizable via the sale of their own share of the crude and gas in their own name; in an incorporated entity, the partners realize their investment via dividends declared and paid;
- In the Joint Operating Agreement setting, major decisions e.g. dissolving the JV or relinquishing a concession are typically by 100% agreement. In the scope of the by-law of the entity analyzed, there was a similar type of voting procedure, i.e., major decisions can only be passed if investors are in unanimous agreement;
- Most PSAs have "non consent" clauses whereby any dissenting voter in a decision can elect to not pay their share of a particular investment decision. They remain a partner but usually surrender rights to some of the production if that investment results in a discovery. However, all major investment decisions must be unanimous;
- The PSAs usually also provide a “sole risk” clause in which a venturer can elect to invest in a specific area in the contractual area that the other venturers do not elect to invest at own risk; however, if a discovery is made, the rewards are fully collected by the “sole risk” venturer;
- Most Joint Operating Agreements usually require a Technical Committee that can make recommendations only to the Operating Committee which is where the true voting/decision is made. In the case of JCE under analysis, as a usual incorporated entity, the real power to decide lies with the Board.

E. The accounting process

As mentioned above, our case study was based on the world's largest oil and gas group. This group has a significant operation in Angola and holds both an oil and gas concession under the PSAs and an investment in a JCE, which is included at the subsidiary level.

The assets and liabilities under the concessions are classified as JCA and reported in the holding company's consolidation, line-by-line, while the investment in the said associate is reported by the equity method.

The following section describes the accounting process followed by the group to account for these two situations.

The Concessions granted under the PSA

The accounting process to report the various aspects of the group's activity in Angola is dependent on the type of role that group plays in the joint venture, i.e., as Operator or non-Operator.

When acting as Operator, the group has to report its financial information at three levels: at the corporate level, the joint venture partners and the concessionaire levels.

The group as multi-block Operator must comply with the covenants from the different PSAs and underlying Joint Operating Agreements, as well as the holding company's accounting principles and procedures.

To fulfil these goals, the group has a four-level hierarchical set of accounting process.

The subsidiary is defined in the first level.

The second level defines the Block (which usually corresponds to a specific concession) or other interests, such as interests in a JCE. However, in addition to the concession and the scope of the group's other interests, the second level also accounts for other types of transaction related to the activity of the common block's activity, specifically those related to the group's multi-block activity, e.g. those collecting all common costs incurred for all blocks operated or not by group, which are subsequently allocated to the blocks based on specific allocation keys.

The third level distinguishes the association costs from the sole costs incurred by the group in its activity. For example, this level collects the association costs (expenditures that will be billed to the non-operator partners) and the sole costs incurred by group (expenditures that are not eligible for partners' billing or to cost recovery).

Finally, the fourth level determines nature of the various expenses and revenues generated by the group. This setting enables the group to comply with the cost recovery PSA rules, since the costs incurred at that stage are recorded by field in each relevant block or interest held by the group.

However, the fourth level setting is no more than the creation of cost or profit centers where all the costs incurred in a given area are accumulated for cost recovery and partners' reporting purposes, and the revenue generated in the field is also posted field by field.

Hence, cost or profit center can be related to several accounting natures, e.g. a cost center related to a drilling campaign in an exploration well can incur costs of materials, payroll, logistics, administrative costs, and so on and is accounted for as intangible assets in the books of the subsidiary. Thus, there is a direct link between the cost and profit centers' contents and B/S and P/L accounts in the corporate books.

In addition to this hierarchical accounting process, each transaction recorded in the group's books are posted either as a corporate transaction (CO), billing transaction (BI) or non billing transaction (NBI).

Consequently, this hierarchical accounting setting not only allows the subsidiary to report the cost to be recovered for PSA purposes, but also reports their cost share to the other partners in the joint venture and reports to the holding company for consolidation purpose.

The accounting treatment for the cost incurred in the concessions where the group is not acting as Operator is quite similar to the previously mentioned treatment.

The group posted the amount of cash call paid to the other concession's Operator in their books and, based on the cash call statement issued by the other concession's Operator, recognizes the costs and assets referred in the statement, as well as the revenue, if applicable, generated from the sale of the oil or gas lifted in the operations.

Thus, the group accounted for their interests in the PSA concessions in the books of its subsidiary, line by line; they are then fully consolidated in the holding company's books. This means that all the investments in fixed assets, intangible assets, as well as expenses and revenues are proportionally accounted for in the holding company's Financial Statements.

The costs and revenues generated by an incorporate entity

As mentioned above, one of the subsidiaries held an investment in JCE and its shareholders are comprised by the four largest oil and gas companies operating in Angola.

The group's participating interest in this JCE is accounted for in the subsidiary's books by the equity method.

All the funding made by partners is booked as investment in their financial statements and then converted into capital share through a Board of Directors' resolution.

The requests for funds made by the incorporated entity have the same information that is provided by the cash calls issued by an Operator of a PSA Concession.

The revenues from the operations carried out by JCE are recognized in the subsidiary's books, when the dividends are declared in the partners' general meeting.

The decision made by the group to account for this JCE by the equity method, despite its activity and scope, appears to be the same as the concessions under the PSA, i.e., exploring, developing and producing oil and gas reserves are due to the venturers under the clauses of the PSA.

This choice was apparently based on the fact that the group would have more discretion and power to control their investments under the PSA (due to the "non consent" and "sole risk" clauses), rather than as investor in the JCE where there is no freedom to refuse or choose a specific investment.

Additionally, in the JCE, the investor will only receive the funds when the dividends are declared by the Board and paid, while in the PSA, the venturer collects the funds after lifting the crude and gas from the contractual area.

F. Discussion

As demonstrated above, a PSA Concession and JCE have similar features even though the latter was legally set up as an entity. In both cases, key decisions, e.g. major investments, awarding major construction contracts, technical decisions, must have the unanimous consent of all partners to be pursued, or in some cases a significant majority of the affirmative votes.

In addition, the partners are obliged to jointly contribute to the joint arrangement's financial efforts in accordance with their participating and/or shareholding interests.

Another important feature that is similar in both settings is that partners are active players in the arrangement, either through the seat on the Board and/or in the specialized committees within the JCE (although they did not hold the decision power, they clearly influenced Board decisions) and through the seat on the Operating Committee in the PSA setting case. This feature confirms early studies in the 1960s and 1970s, such as Kocan (1962), Nielsen (1965) and Reklau (1977) which first suggested that the active role of venturers in joint arrangements operations would indicate that those venturers actually jointly shared the control of the joint arrangement. This position is in line with IASB's current understanding in IAS 31.

Thus, contrary to the IASB's position in ED 9 which states that the (legal) form of the arrangement is no longer the main determinant of the accounting treatment, it is clear that the legal form in which it is set is paramount to the determination of how to account for a given arrangement. The case study demonstrated that the existence of joint control over a group of assets and/or entity is usually ensured through a binding contract between the partners where joint control is established. It is not reasonable to assume that a joint arrangement can be constructively established in the oil and gas industry; therefore, any joint arrangement to be enforced must be defined in writing.

One of the rationales behind the IASB's position to prohibit the use of the proportionate consolidation method is the fact that its use to account for the JCEs' assets and liabilities could be incorrectly recognized as some assets and liabilities included in these entities hypothetically do not meet the recognition criteria.

Both the activities related to the concessions under the PSA rules, and those carried out by JCE generated independent revenues from their partner/investors' main businesses, i.e., the joint arrangement is not the continuation of the business partners.

As mentioned above, the assets related to the concessions under the PSA rules are realizable through the sale of oil and gas lifted from the specific field in a given block and are accounted for within the subsidiary's books as revenue; on the other hand, dividends declared and paid to the investor based on the investors' participating interest are the primary source of the realization of JCE assets.

Therefore, any asset included in the PSA Concessions is realizable through an independent source of cash flows and is jointly controlled by the venturers; in addition, any liability included in the PSA Concession is always due by the partners since they have the contractual obligation to pay the cash calls issued.

As for the assets and liabilities recognized in the JCE books, these are also paid by investors by means of the issuance of shares and, as mentioned above, the Shareholding Agreements set various rules, such as amortization of its shares and other legal mechanisms, should a partner default.

Earlier in this dissertation, it was shown that the decision making process followed in the PSA Concessions is the same as that followed in the associate, even though the legal structure of the latter is regulated by common commercial law and its Bylaw and Shareholding Agreement defined a specific voting procedure for major decisions, namely the unanimous consent of the partners.

At this stage, it was confirmed that regardless of their legal form both arrangements:

- Have their major decisions subject to unanimous consent of all partners or a significant majority, which essentially leads to unanimous consent from the partners;
- Generated independent cash flows from main partners' businesses that comprised the arrangement and realizing the assets over which the partners of the arrangement have joint control, consequently meeting the asset recognition criteria;
- Liabilities incurred in those arrangements are the real obligation of each partner, since the Joint Operating Agreement and Shareholding Agreement legally bind the partners to those arrangements, and therefore the liabilities therein meet the recognition criteria for liabilities.

Hence, the two arrangements are very similar but are accounted for in two different forms simply as a result of their legal form. As referred, the group includes the portion of the assets, liabilities; expenses and revenue, based on its participating interest in the Concession under PSA, line-by-line in its Consolidated Financial Statements, while the investment in the associate is consolidated by the equity method.

Thus, more than simply finding out whether these two economic realities are better portrayed by the proportionate consolidation method or the equity method, it is the definition of joint arrangements itself that should be questioned so that a consistent accounting treatment for joint arrangements and associates can be established.

As referred above, IAS 28 – Investments in Associates states that an associate "is an entity, including an unincorporated entity such as a partnership, over which the investor has significant influence and that is neither a subsidiary nor an interest in a joint venture". The same standard defines significant influence as "the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies."

However, according to paragraph 7 on IAS 28, it is presumed that there is a significant influence by an investor, when the investor:

a) Has a representation on the board of directors or equivalent governing body of the investee;
b) Has a participation in policy-making processes, including participation in decisions about dividends or other distributions;
c) There are material transactions between the investor and the investee;
d) There is interchange of managerial personnel; or
e) Provides essential technical information.

On the other hand, IAS 31 defines joint arrangement as a "contractual arrangement whereby two or more parties undertake an economic activity that is subject to a joint control". IAS 31 therefore states that there are two main characteristics common to all joint ventures: (a) two or more ventures are bound by a contractual arrangement; and (b) the contractual arrangement establishes a joint control. The existence of a contractual arrangement precludes the actual existence of a joint venture, as IAS 31 states unequivocally in paragraph 9: "Activities that have no contractual arrangement to establish joint control are not joint venture for the purposes of this standard."

On the other hand, the UK literature (FRS 9) defines joint control as the power of venturers to exercise their joint control for their mutual benefit, where each venturer conducts its part of the contractual arrangement to its own benefit. According to UK literature, joint control conceptually assumes the venturer plays an active role in setting joint ventures'

operating and financial policies. FRS 9 also referred that an arrangement could initially qualify to be accounted for as a subsidiary, but could create a joint control with the other partners through other contractual arrangements (ventures).

Nevertheless, if an investment is to be recognized as an associate, the active role rule must be established; therefore, FRS 9 determines that the venturer's veto power in a joint arrangement is different from the concept of significant control.

As a result, FRS 9's feature, whereby any venturer (no matter the significance of its interest percentage in the joint arrangement) can actually block a major decision, distinguishes a joint arrangement from an associate.

Consequently, under the UK GAAP, it is concluded that the resources made available to partners/investors are jointly controlled as both the arrangements created by a contractual agreement between the partners and by forming a legal entity require unanimous consent between partners and/or investors.

It is commonly accepted that an interest in joint arrangements is different from an interest in an associate.

This case study has shown that the economic foundations of both an interest in a concession under the PSA and a JCE vested with veto power resulting from the joint effort of various investors in a common investment are the same.

CONCLUSION

This dissertation looked at joint ventures in the oil and gas industry, aiming to understand whether or not a JCA and a JCE, in their economic essence, are different. It argues that there is no reason for a differentiated accounting treatment for consolidation purposes for those two realities.

In order to ascertain this proposition, it was developed a case study in a company that hold these two types of joint arrangements. The case study was made with one of the largest worldwide oil companies, specifically in Angola, where the group has an extensive operation, namely at the upstream level. The group has participating interests in several concessions, which includes interests in oil and gas concessions governed by a PSA and direct shareholding interest in the legal entities.

The case study focused in the legal framework of these types of joint arrangements and it suggests that both realities in its substance are similar, i.e., either operations carried out under the PSA rules and regulated through a Joint Operating Agreement and the operations of the JCE governed by a Bylaw and Shareholders Agreement are joint arrangements, independently of the latter having legal personality.

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