FISCAL REGIME OF GHANA'S OIL AND GAS INDUSTRY: A PRE – COMMERCIAL PRODUCTION REVIEW

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ABSTRACT

A country's fiscal regime is very important determinant for investors who would want to invest because it defines the extent to which the host government and the prospective investor can share the risks and rewards of the project. There is no optimal choice of fiscal regime for the petroleum industry worldwide. The amounts of revenue Ghana receives largely from the upstream petroleum operation depend on effectiveness of the fiscal regime governing her oil and gas industry. The nature of investment packages coupled with weak laws and inadequate administrative capacity in the industry, is making the nation currently earn relatively smaller share of petroleum revenue. Timely amendments of the petroleum tax laws are necessary to safeguard revenue due the state from all petroleum operation in Ghana. There is the need for capacity building to monitor production and costs, and to collect petroleum taxes due the state.

INTRODUCTION

The world earmarked Ghana's economy for remarkable growth and development due to commercial oil and gas production, which commenced in November 2010 in her Jubilee Oil field and several discoveries afterwards. One of the features of the Jubilee field is that it became one of the world's fastest well tracked development because it took three years and four months from discovery to production whereas the average in the world was 6 to 7 years. Peak production target for the field is 120,000 barrels of oil per day (bopd), and 120 million cubic feet of gas. Since then, several other discoveries have been made which include TEN (Tweneboa, Enyenra and Ntomme) in the Tano Basin. Ghana has four sedimentary basins namely: Tano Basin, Saltpond Basin, Accra/Keta Basin, and Inland Voltaian Basin. It is estimated that if development and production plans materialize from 5 to 10 years, Ghana could become one of Africa's major oil and gas producer by producing as much as half a million *bopd*. The question is what happens to this awe-inspiring potential if there are not enough plans to derive the maximum benefits to turn around the lives of the citizens. There is growing interest of Ghanaians about the prospects that the new Oil and Gas industry hold for the nation and whether policy makers are making the right decision to safeguard the interest of the nation in the exploration, development and production of crude oil and gas on the shores of Ghana. Some believe the nation rushed into producing oil at a time when most of her laws regarding the petroleum industry were archaic. There exist also mindsets on whether the government and authorities are communicating clearly issues concerning the take of Ghana in the oil and gas production. Fiscal regimes are the most important terms of a natural resource contract as they set the limits and define the amounts of profit and economic rent that will accrue to each party throughout the life of the contract. There are two broad categories of petroleum agreements, namely Royalty/Tax system (RTS) and Contractual based system (CBS). The CBS include Production Sharing Contracts/Agreements (PSC or PSA) and Service Agreements (SA). It is unusual, in modern times however, to have any of these petroleum agreements in its typical or conventional form. The emergence of National Oil Companies (NOC) in the industry has led to various hybrid forms of petroleum agreements, particularly in terms of the fiscal regimes and host country (HC) participation. Ghana chose a hybrid regime dominated by royalty and corporate income tax in view of the perceived cost, the risk involved in the petroleum operation, the resource endowment, and other social, economic and political factors. The elements like State's Initial Interest, additional interest and royalty, which are typical of PSC are found in Ghana's fiscal regime that makes the fiscal regime hybrid, but not as the conventional concessionary fiscal regime. These elements of PSC introduced to ensure some level of upfront revenue; profit oil sharing and host government participation. In addition, Ghana's fiscal regime was fashioned to entice investors to venture into the new industry.

Prior to Jubilee production, the major legislations which governs Ghana's petroleum industry including the Ghana National Petroleum Corporation Act, 1983 (P.N.D.C Law 64) (GNPCL), Petroleum Exploration and Production Act, 1984 (P.N.D.C Law 84) (PEPL) and Petroleum Income Tax Law, 1987, (P.N.D.C.L 188) (PITL) were enacted far before the nation started massive production of petroleum. These key laws of Ghana's fiscal regime had seen no amendments since their enactment in 1980s to reflect current changes and issues in the industry. The concerns that bothered many minds were whether those old laws are adequate to ensure equitable share to the people of Ghana from the discovery of oil. There were fear of loopholes in the laws, which the International Oil Companies (IOCs) could take advantage of to siphon everything, discovered leaving the current generation and posterity nothing to benefit from. The institutions, capacity and tax collection mechanisms may not be adequate to "police" the IOCs to pay the right royalties, taxes and other revenue due the state under the laws and petroleum agreements. To worsen the "worries" is the politics of the industry by the various political parties in the country, which do not communicate the right terms and issues correctly to the citizens. However, best practice of the industry demands fair transparency, proper education and local content and participation to ensure that Ghana does not suffer the oil curse that is happening to some oil producing countries like Nigeria, Chad and Gabon. Many critics and writers including Hackman (2009) asked question as to whether Ghana was right in choosing royalty tax system for the oil sector. There has been little scholarly work and publications done on this subject. The existing ones do not clearly analyze the right mix of fiscal policy for Ghana's oil and gas industry. This paper therefore assessed how reliable the current fiscal regime together with legislative issues, tax issues and contractual issues are to generate adequate economic rent from the Ghana's Oil and Gas industry within the production era. The scope of the paper covers the pre-production period from 1983 to 2010.
The rest of the paper is organized as follows; the next sections reviews literature, discussions of results, summary of major findings, recommendations and conclusion.

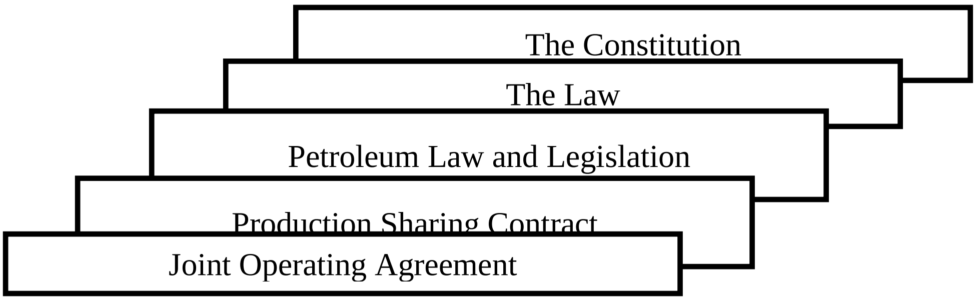
LITERATURE REVIEW

Overview of Ghana's Legal/contractual framework

Marful-Sau (2009) had a view that because of the peculiar nature of the industry, the direct benefit to Ghana will be the revenue accruing from the production of the oil and gas itself. This will obviously depend mostly, on the legal and fiscal regimes adopted for the upstream oil and gas production.

Kjemperud (2003) divided petroleum legal/contractual framework to cover three major areas as follow: (1) Legislative issues (2) Tax issues and (3) Contractual issues.

Figure 2.1 Legal/Contractual Frameworks



Source: Kjemperud (2003)

In a lecture notes delivered as part of module of Post Chartered Diploma in Oil and Gas Accounting, ICAG, Marful-Sau (2013) pointed out that most petroleum legal regimes seek to address the following issues: (a) the procedure for licensing, exploration periods, efficient development and production of the resource in accordance with good oilfield practice; (b) the financial benefits between the government and the IOC and ensuring the utilization of national goods and services, subject to their availability; (c) set the financial obligations of the IOC and their audit and monitoring; (d) the acquisition and transfer of appropriate technology and the training of nationals within the industry; (e) the standards for environmental protection, health and safety of the communities hosting the petroleum project. In the same lecture, Nyame (2013) pointed out the key tax laws which govern the fiscal regime of Ghana's upstream petroleum sector include: (*i*) PTIL, (*ii)* Petroleum Agreements (PA), and (*iii*) Internal Revenue Act, 2000 (Act 592), As Amended (IRA). The PITL, IRA, and the PA constitute the Petroleum Income Tax Regime. According to Ernst & Young (2012), the IRA is the main tax law covering downstream petroleum activities, whereas the PA and the PITL are the main instruments covering upstream petroleum activities. Marful-Sau (2013) also cited that the three documents play complementary roles to give legal backing and effect to the administration of the petroleum income tax. Nyame (2013) identified the PITL as the main law; provisions of IRA are applicable where there is no express provision in the PITL and matters that are subject to negotiations are to be applied as agreed and stated in the PA. Other laws and regulations include: (*iv*) The Constitution of Ghana, 1992, (*v*) PEPL, (*vi*) GNPCL (*vii*) Value Added Tax Act, 1998 (Act 546), As Amended, (*viii)* Custom, Excise and Preventive Management Act 1993 (Act 330), (*ix)* Petroleum Revenue Management Act, 2011 (Act 815) and (*x*) Petroleum Commission Act, 2011 (Act 821).

The 1992 Constitution of Ghana

Article 257 (6) of the 1992 Constitution of Ghana passed ownership of every mineral in Ghana in the Republic of Ghana and vested it in the President on behalf of, and in trust for the people of Ghana. However, the powers of the President in executing petroleum agreements are regulated by Article 75 of the same Constitution. Article 268 (1) offers protection for all natural resources in Ghana by ensuring that any PA is subject to ratification by Parliament. Banful (2010) noted that the PAs goes to Cabinet for approval and then to Parliament for ratification thereby offering the investor a stable and transparent arrangement. The oil and gas resources found offshore are the property of the people of Ghana, and the

Royalties, corporate taxes and revenue from the carried interest accrue to the Republic of Ghana on behalf of the people of Ghana (B&FT (2014).

Petroleum (Production and Operation) Law of 1987 (PNDC Law 84)

Section 1(1) of the law created ownership for all petroleum resources in the Republic of Ghana and same is vested in the President on behalf of the people in accordance with article 257(6) of the 1992 constitution of Ghana. It established the contractual relationship between the state, the national oil company and prospective Contractors (Section 2(1) and Section 5(4). Under section 2 of the law no person or entity other than the GNPC was allowed to engage in petroleum exploration, development and production without an agreement with the GNPC and the Republic. *The Petroleum Commission Act 2011 (Act 821) is now giving this regulatory role to the petroleum commission.* The law provided a contractual period of 30 years' subject to renewal for all petroleum agreements between the state and Contractors (Section 12). Section 14 of the law provided a Relinquishment period to be specified in petroleum agreements in case the Contractor makes no commercial discovery. Section 8 of the law prohibited the assignment of petroleum agreement without the prior consent in writing by the Minister of Energy. The law stipulated that the production of petroleum shall be carried out in accordance with best international practice. Under section 27 the Minister of Petroleum could authorize any person to inspect any petroleum operations and ensure that the operations are carried out in accordance with the law. The Contractor had the right under the law to export its share of the petroleum under the petroleum agreement [1](Section 24). It provided for government's participatory interest in all petroleum projects and sets the basis of fiscal measures like royalty and income tax in petroleum agreements (Section 17). The law also provided for the utilization of national goods and services, subject to their availability. Under section 32, the Minister is empowered to make Regulations by Legislative Instruments to give effect to prescriptions in the Act. PA of a contractor was shadowing this law, though it set out the basic framework for exploration and production of petroleum in Ghana. The law allowed room for tax evasion for failing to give definite definition of exemptions for import duties.

Ghana National Petroleum Corporation of 1983 (PNDC Law 64)

Section 2 of the law established the GNPC and made it responsible for managing the petroleum resources of Ghana and to undertake the exploration, development, production and disposal of petroleum. It mandated GNPC to promote the exploration and orderly development of the petroleum resources which include undertaking geological data acquisition, production of petroleum, evaluation of IOCs which apply for petroleum license, and ensuring effective transfer of appropriate technology to Ghana. The law set out the functions, administration and corporate governance of the GNPC (White 2013). By Asamoah (2013), the vision of the GNPC is to be a World-Class Corporation with the capability of making Ghana a fast growing destination for petroleum investment in West Africa.

Model Petroleum Agreements (MPA), 2000

According to Article 12.1 of Ghana Model Petroleum Agreement (PA), "No tax, duty, fee or other impost shall be imposed by the State or any Political Subdivision on Contractor, its Subcontractors or its Affiliates in respect of activities related to Petroleum Operations and to

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the sale and export of Petroleum other than as provided in this Article." This provision makes the elements of fiscal regime outlined in the Petroleum Agreement to constitute an enclave fiscal regime for petroleum operations in Ghana. Key elements in the PA that constitute the fiscal regime in terms of revenue are Royalty, Carried Interest, Additional Interest, Petroleum Income Tax, Additional Income Tax, Additional Oil Entitlement, Surface Rentals, Other Rentals and Technology Allowance. The PA clarified issues on Parties to the agreement, Ownership of the natural resources, Fiscal Regime, Operational clauses, Technical and Administrative clauses, Assurance to the International Oil Companies, Duration of the Agreement, Decommissioning, Termination of the Agreement, and Choice of Law and dispute resolution. The PA permitted contractors to transact business in a currency of their choice but for tax purposes, must seek approval of the Commissioner General to report in any other currency apart from the Ghana cedi. CITG (2013) recommended to government to ensure that provisions on tax in Petroleum Agreements (PA) are consistent with the tax provisions in the current tax laws.

One of the major weaknesses of the PA is that it was not a standard agreement for all contractors. Every contractor negotiated its own terms with the government. The agreed terms became the enclave of fiscal provisions that dictated the take of each party to the agreement and their respective obligation. The PA shadowed any other enactment unless specifically referred to in the agreement. It seemed Ghanaians just had to forget any provision not considered in a contractor's PA. Another significant worry about the PA was that it was originally more investor attractive package and continues to apply to subsequent agreements. The original intention of the drafters of the agreement has helped the country to start her oil production earlier than other neighboring countries such as Togo, Gambia and Cote d'voire. Though many critics argued the nation rushed into production, there is no better time in the future than now to venture into something worthwhile. Procrastination deprived this nation of utilizing this God-given endowment to better the wellbeing of citizens for over century. The focus now is how to restructure the fiscal elements to guarantee a stable and neutral fiscal regime. The PA needs further modification and standardization for all contractors and potential investors in the industry.

Petroleum Income Tax Law of 1987 (PNDC Law 188)

The PITL was enacted in the 1987 where the country knew little about petroleum exploration, development and production. No amendment was made to this law prior to the major commercial Jubilee production on 28th November, 2010. The law established the tax system for petroleum production in Ghana. It provided that income tax shall be assessed on gross income after the deduction of outgoings and expenses wholly, exclusively and necessary incurred in the petroleum operations (Section 3). It stipulated a progressive income tax based on profit rather than revenue. The law provided for income tax of 50%, unless otherwise agreed or negotiated in the petroleum agreement (Section 6). The income tax rate now for the jubilee field is 35% (Act 592 (2000), as amended). Sections 27 and 28 of the PITL provided for withholding tax on amount due to sub-contractors and expatriate employees respectively. The rate of withholding tax in existing PAs is 5% on supply of works and services, but silent on supply of tangible goods. The current practice in the industry is that Contractors do not withhold from payment due to sub-contractors for supply of tangible goods for petroleum operation. Sub section 2 of section 27 make amount withheld from payment due to contractors pursuant to subsection 1 of section 27 a final tax, and thus relives sub-contractors of any tax under any law in Ghana. The existing PAs also exempt affiliates of the contractors from withholding tax when the services provided by the affiliates are charged to the contractor at a cost. Foreign employees of contractors who become resident for tax purposes pay employment tax (PAYE) based on the graduated tax rates stipulated under the first schedule of the Internal Revenue Act, 2000 (act 592) as amended. The foreign employees of contractors who live and work in Ghana for 30 days or less are exempted from payment of PAYE from any money or benefit accruing to them under employment in Ghana. The law stipulated the returns to be filed by persons engaged in the petroleum operations in Ghana, and other administration of the taxes, which include assessments, compliance and offences for non-compliance. However, taxable areas including dividend tax and capital gain tax were not considered. The law also did not make any provision on Thin Capitalization (TC) which is necessary for an industry where debt capital is heavily used. The law provided for full cost recovery of qualifying capital cost incurred by the IOCs. This will give incentives to the IOCs to keep cost high by buying items at high cost from their international affiliates and related companies, thus diverting profits. ACEP (2013) uncovered that one important weakness in the PITL is that it failed to provide cost recovery limits on the capital cost of petroleum companies. The law also borrowed some of its administrative sections from the IRA. The provisions in the PA shadowed the provisions in the PITL. The repeal or amendments to this law are necessary to cope with current and future taxation challenges of the crude oil industry.

Internal Revenue Act, 2000 (Act 592), As Amended

This law initially was not considered a part of major laws governing petroleum operations. It was initially conflicting with the PITL on many issues including capital allowance. The law however had its own practical challenges in areas of enforcement, monitoring and evaluation. According to the GRA (2013) plan was to consolidate all tax laws under one tax code to ensure efficiency and coherence. The IRA was amended to provide for the following in the areas of petroleum operation: (*i*) capital gains tax of 35%; (*ii*) tax on profits arising from the assignment of interest.; (*iii*) Limits on allowable interest on debt-to-equity ratio of 3:1 (i.e. thin capitalization); *(iv*) withholding tax on interest payments, subcontractors and expatriate workers; (*v*) Provided for relevant sections of IRA to apply to petroleum operations. The IRA needed significant amendments to absorb all petroleum fiscal elements and their administration. The IRA introduced tax treatment of “Decommissioned Fund”, which was required to be established by a contractor under the PEPL. The IRA retained the provisions in the PITL relating to capital allowances which are considered adequate.

Value Added Tax Act, 1998 (Act 546)

According to White (2013), the GRA issued VAT Relief Purchase Orders (VRPOs) to the Contractors to relieve them from the payment of VAT. However, Subcontractors are required to register for VAT, charge VAT on their services and claim any input VAT incurred. According to Nyame (2013), practical challenges exist in the administration of the exemption clause in the Petroleum Agreement with respect to inappropriate use of VRPOS including non-issuance (or retrospective issuance) of VRPOs and non-submission of VRPO returns.

Customs Excise and Preventive Service (Management) Law of 1993 (PNDCL 330)

Customs controls at importation, landing and exportation begin from a port. In a lecture notes delivered as part of module of Post Chartered Diploma in Oil and Gas Accounting, ICAG, Nyame (2013) stated that minimal amendment to CEPS Law had been done which declared FPSO-KN as a port and its security area as custom area, and forbid direct importation to the vessel. Declaring the security area around FPSO-KN as a customs area now enable customs laws to apply to ships and tankers that come to the field. The minimal amendment to Act 330 was necessary since going by the old Act 330; FPSO-KN is not a port but a ship. It is necessary to proscribe direct importation to the FPSO-KN so that every item imported will go through custom check.

Local Content Obligation (Introduced by the Local Content Regulation, 2014)

The Ghana Policy Framework (2010) on The Local Content and Local Participation in Petroleum Activities defines Local Content and participation as the level of use of Ghanaian local expertise, goods and services, people, businesses and financing in oil and gas activities. According to White (2013), the Local content regulations have been introduced to ensure the use of Ghanaian goods and services as a means of increasing the rate of Ghanaian participation in the petroleum industry. By a Policy Framework Ghana initially hoped to achieve 90% Local Content in the oil and gas value chain by 2020 (Ghana Policy Framework 2010) compare to Nigeria's 40% local content since its oil find (Energy Commission 2006). This target had been reduced to 60 % in a review of the policy (Sau-Marful 2013). Tordo (2007) identified that Local content obligations allow the government to achieve a diversity of policy objectives, from transfer of technology and know-how to strengthening of local industries and creation of local employment. Marful-Sau (2009) stated that Ghana is not likely to benefit from any major forward or backward economic linkage, in the production of oil and gas in its territory, in the short term, due to its under-developed economy.

Overview of the various Fiscal Regimes

Johnston (2007) defines petroleum fiscal regime as a country's set of laws, regulations and agreements which governs the economic benefits derived from petroleum exploration and production. The regime regulates transactions between the political entity and the legal entities involved. Jennings, Feiten and Brock (2000: 620) define fiscal regime as the sharing arrangement which encompasses all means (such as bonuses, royalties, profit sharing, and income taxation) by which the host government and the IOCs share in the venture production and profits.

According to Coker (2012) a fiscal regime must be neutral to guarantee a win-win situation for both the IOC and the Host Government (HG) but, in practice, becomes unattainable because it conflicts with the HG's objective of maximising wealth through revenue generation. Johnston (1994) pointed out the two main families of fiscal system are "concessionary" systems (more commonly known these days as royalty/tax systems (RTSs)) and "contractual based" systems (CBSs) (which include both production sharing contracts (PSCs) and service agreements (SAs)). ICMM (2009) noted that in some jurisdictions, Production Sharing Contracts (PSCs) are also referred to as Production Sharing Agreements (PSA) and Royalty/tax system is also known as concessionary system or concessionary regime.

According to Baunsgaard (2001), the justification for having a separate fiscal regime for the mineral sector is related to the special role of economic rent in the mineral extraction and that after settling on an appropriate share of economic rent, focus should be on how best to collect the rent. Parish (2011) identified that some countries such as Russia and Kazakhstan have moved away from production sharing and allow new investments only under royalty/tax terms, and other countries such as Brazil have moved in the opposite direction. Johnston (2007) argues that in achieving financial objectives, the type of fiscal system does not matter much, and that the details of the design of each particular arrangement are important, and that these details include the timing of payments made to governments, the incentives that entice companies to keep cost down and the provisions that affect company accounting. Daniel (1995) also stressed the same point that the economic effect of PSC is the same as that of RTS with progressive rates for higher bands of profit. ICMM (2009) and Johnston (2007) agreed that the main difference between the two regimes lies in the control over the resources extraction process and the ownership over the production outcome, and while the type of system does not matter for achieving purely financial objectives, they may very well matter with respect to the political-economy of spending decisions and public sector oversight mechanisms. Kaiser and Pulsipher (2004) cited there are more fiscal systems in the world than there are countries because (*i*) numerous vintages of contracts may be in force at any one time, (*ii*) Countries typically use more than one arrangement, and (*iii*) Contract terms are often negotiated and renegotiated as political and economic conditions change, or as better information becomes available.

Royalty/Tax System (Concessionary Regime)

Royalty/tax concessions allow companies to take full control of the entire production process. Resource owners (typically governments, but sometimes private owners) grant companies a concession and in exchange they receive a monetary return. This is why royalty/tax based systems are also referred to as concessions (Kumar, 1995). In such a concessionary agreement, the company is the owner of all risk and profits from the reserves within government regulations, as in the U.S. and Canada (Jenning et al, 2008). Kjemperud (2003) gave characteristics of the RTS as to include the IOC's right explore, right to own production and resources, payment of royalty and surface rentals to HG, payment of taxes on profit and the right to export hydrocarbons. According to ICMM (2009), the RTS are typically found in developed countries, where statutory legislation spells out the tax policy applicable to the entire sector across a country. They can also be found in developing countries. In developing countries the fiscal terms applicable to specific investment projects are in many cases set out in negotiated contractual agreements between the state and private companies.Jennings, Feiten and Brock (2000) found out that a variation frequently encountered in a concessionary system involves the host government participating in the oil and gas operations as a working interest owner.

Production Sharing Contracts

Production Sharing is fiscal scheme for petroleum in which production at a surface delivery point is shared between a state entity and a private contractor (Baunsgaard 2001). This was started by Bolivia in the 1950's and made popular by Indonesia from the 1960's. It is now the most used petroleum agreement in developing countries like Libya, Egypt, Qatar, Oman, Iraq, Nigeria, Angola, Trinidad and Tobago, Gabon, Equatorial Guinea, Algeria, etc.In 2001 about 48% of all petroleum fiscal systems were based on PCSs/PSAs, 8% on SAs and about 44% on RTS (Johnston 2007). Marful-Sau (2013) explains PSA has a simple formula with respect to taxation. Adenikinhu and Oderinde (1997) notes that PSC is today the toast of Nigerian Petroleum industry as the desire of the Nigerian government to open up the sector for more foreign participation.

Kaiser and Pulsipher(2004) pointed out that a typical PSC has four main components: (*i*) Royalty (*ii*) Cost Recovery (*iii*) Profit Oil, and (*iv*) Tax.Fernandez (2008) on study of fiscal regime of Equatorial Guinea realized that despite PSC is widely because of their simplicity;

production-rate splits are so regressive that they penalize smaller fields while at the same time cheat the government of upside from large fields.

There are many arguments that Ghana would have benefited more by choosing a typical PSC. The PSC is now the most used petroleum agreement in developing countries such as Libya, Egypt, Qatar, Oman, Iraq, Nigeria, Angola, Gabon, Equatorial Guinea, Algeria, etc. It has a simple formula with respect to taxation which make it seems relatively more tax efficient. RTS is typically found in developed countries where tax administration is robust and statutory legislation spells out the tax policy applicable to the entire sector.

Table 2: Differences and Similarities of the major Fiscal Regimes

	Tax/Royalty System	Production Sharing Contracts	Service Agreements
Types of Projects	All types: Exploration, Development, EOR	All types: Exploration, Development, EOR	All types but often non-exploration
Ownership of Facilities	International Oil company	Government NOC	Government NOC
Production Facilities Title Transfer	No Transfer	"When landed of upon commissioning	"When landed or upon commissioning
IOC Ownership of Hydrocarbons (Lifting entitlement	Gross Production less Royalty Oil	Cost Oil + Profit Oil	None may have preferential right to purchase
Repatriation of Service Company Equipment	Yes	Yes	Yes
IOC Lifting Entitlement (%)	Typically around 90%	Usually from 50%-60%	None (by definition)
Hydrocarbon Title Transfer	At the wellhead	Delivery pointfiscalisation poin or Export point	None
Financial Obligation	Contractor 100%	Contractor 100%	Contractor 100%
Government Participation	Yes /Not Common	Yes /Not Common	Yes /Very Common
Cost Recovery Limit	No	Usually	Sometimes
Government Control	Low Typically	High	High
IOC Control	High	Low to Moderate	Low

Source: Johnston and Rogers (2008), Fiscal system comparison.

Table 2.5 Key Characteristics of petroleum fiscal regime in selected African Countries

Country	Royalties	Production Sharing	Income tax rate	Resource rent tax	D.W.T (non res)	Investment incentives	State equity
Ghana*	12.50%	None	50%	12 – 28%	10%	-	25%
Angola	16 – 20%	50-90% (V)	50%	None			
Gabon	10%	65-85% (V)	None	None			
Nigeria	0 – 20%	20–65%	85%	None	10%	Yes (E, Cr)	---
Cote d'Ivoire	None	60-90% (V)	None	None			
Libya	16.67%	Yes (P)	65%	None	---	---	---
Sudan	---	60-80%	None	None	None	---	None
Benin	12.50%	55%	None	None			
Tanzania	20%	45-72.5%	None	25-35% rr	10%	---	15% (C)
Zambia	10%	0-25% (ror)	Contract	Yes	15%	Yes (E,I,U)	10%
Algeria	10-20%	50-85% (P)	None	None	20%	None	51%
Egypt	10%	70-87% (V)	40-55%	None	None	Yes(I)	None

Source: Baunsgaard, T (2001) A Primer on Mineral Taxation. IMF Working Paper, WP/01/139 Adopted from Barrows (1997), Coopers & Lybrand (1998), Pricewaterhouse Coopers (1999), Otto et al. (2000), and International Bureau of Fiscal Documentation (various).

Production sharing linked to physical volume of production (V), years of production (T), or realized profitability (P). Investment incentives: tax holiday (H), accelerated depreciation (A), tax credit (Cr), current expensing of exploration and/or development cost 9E), exemption of imports of equipment and capital goods (I), unlimited loss-carry forward (U) and other (O)

Overview of Elements of Ghana's Fiscal Regime
Royalty

Under Section 20 (1) of the Petroleum (Exploration and Development) Law, PNDC Law 84, royalty is payable for all petroleum produced in Ghana, except as may be provided under terms of a petroleum contract. Article 10.1 and Article 12.2 of the MPA imposes royalty of twelve and a half per cent (12.5%) of the Gross Production of crude oil pursuant to the provision of PNDCL 84. According to White (2013), royalty payable by Contractors to the Government of Ghana ranges from 4% to 12%of gross production of crude oil depending on the PA of the Contractor and that the rate depends on the perceived cost, the risk involved in the petroleum operation and the depth of the sea operation. Royalties paid by Contractors are a tax deductible cost in assessing their tax liability. The royalty for the Jubilee Field is 5% levied on the gross production according to the provisions of the PA. Marful-Sau (2009) noted the royalty rate in Nigeria ranges from 4% to 12% and in Indonesia it is 10% even with a Production Sharing Contract (PSC), thus the royalty rate of the Jubilee field is one of the lowest in the upstream industry in the world; making the Jubilee Field project attractive and competitive. For Tordo (2007) identified the advantages of royalty to a host government to include upfront revenue as soon as production starts, and easy to estimate, calculate, collect, and monitor. He pointed out that because it is calculated on either revenue or production, the regressive nature can distort investment decisions and may encourage uneconomic choices.

Carried Interest

The concept of carried interest in the oil industry takes the form of government participation in the exploration and development of the field. With the concept the government exploration cost is carried by the IOC and upon commercial discovery the government then takes a specified proportion of the exploration cost (Tordo, 2007). Under the Jubilee Field contract, the government is exempted from paying any exploration and development costs (MPA 2000). By the MPA, GNPC shall have a ten percent (10%) initial interest in all Petroleum Operations under this Agreement. With respect to all Exploration and Development Operations GNPC's Initial Interest shall be a Carried Interest. With respect to all Production Operations GNPC's Initial Interest shall be a paid interest. The carried interest is progressive while free equity interest is regressive (IMF 2012). Tordo(2007) identified that the motivation for a host government direct participation is to increase the sense of ownership, facilitate transfer of technology and to increase the control over field development. Ernst& Young (2015) notes Ghana has a 10% to 12.5% initial interest take in oil and a 10% interest in gas, or their cash equivalents.

Additional Interest

Under the petroleum contract the government has the right to opt for Additional interest which is a paying interest, unlike the carried interest. This is aimed at enhancing the benefits to the state but it goes with cost. The contract grants the government the right to pay a proportional share of the development and production cost to be entitled to the Additional interest (Marful-Sau 2013). Article 2.5 of the MPA gives the option to the state to acquire additional interest by contributing a proportionate share of all development and production costs in respect of such development and production area. Under the MPA, the state does not pay exploration cost. Under the Jubilee field contract, the additional interest was negotiated at 3.75%. In the 2009 State of the Nation address, President Mills directed the GNPC to pay government's share of the development and production cost, estimated at US$161million, to acquire the 3.75% Additional interest in the Jubilee Field project. PIAC report (2013), pointed out that as a result of a redetermination of the Jubilee Field's Original Hydrocarbon in Place (OHIP) across the Deep Water Tano and West Cape Three Point Blocks, Ghana's share of petroleum declined slightly under the Unit Operating Agreement from 13.75% to 13.64%. According to Koranteng (2014), any party to the Jubilee Unit Operating Agreement with more than a 10% Jubilee Unit Interest may call for a second redetermination after December 1, 2013.

Corporate Income Tax

Section 6 of the PITL imposes this tax. Section 2 stipulated that every person carrying on petroleum operations shall pay tax for each year of assessment on his chargeable income calculated in the manner prescribed by the PITL. Under Section 3 of the Law188, the IOC's were entitled to deduct all outgoings and expenditure, which are wholly, exclusively, and necessary incurred in petroleum operation including capital allowance computed in accordance with the schedule to the law. Under the Law, the tax payable on petroleum operations in an assessment year was 50% of chargeable income, unless the petroleum contract provides otherwise. For the Jubilee Field project, the contract imposed a tax rate of 35%. Tordo (2007) pointed out that the key elements of the petroleum corporate income tax are the definitions of taxable income and the rate, and that their assessment, collection, and monitoring can be more easily accommodated within the country's existing systems.

According to Nakhle (2008), the main advantages of corporate income tax are its neutrality and progressiveness in their operation since they target rents and profit but will yield late revenues for the HG.

Additional Oil Entitlement (Art.10.2)

This is Ghana's version of the windfall tax (Hackman 2010). According to article 10.2 of the MPA the State shall be entitled to a portion of Contractor's share of Crude Oil then being produced from each separate Development and Production Area (hereinafter referred to as **"Additional Oil Entitlements" or "AOE")** on the basis of the after-tax inflation-adjusted rate of return ("ROR") which Contractor has achieved with respect to such Development and Production Area as of that time. The windfall profit is defined as when the IOC's actual internal rate of return exceeds the targeted rate of return used to evaluate the profitability of the venture during the project negotiations. The targeted internal rate of return for Kosmos Energy is assessed at 25% and that of Tullow is 19%. Accordingly, based on agreed progressive higher rate of return threshold, the net profits in excess of the targeted rate of return will be taxed at 5% for Kosmos and 7.5% for Tullow, whenever windfall profit is recorded.

Surface Rentals

Section 18 of the PEPL provided for the payment of annual rental charges per square kilometer of the area remaining at the beginning of each contract year as part of the contract area, in the amounts as set forth below. Tordo (2007) argued that given the limited amount, surface fees do not present any particular disadvantage to investor.

Table 2.3 Rates of Surface Rentals in Ghana

Phase of Operation	Surface Rentals Per Annum
Initial Exploration Period	US $ 30 per sq. km
1st Extension Period	US $ 50 per sq. km
2nd Extension Period	US $ 75 per sq. km
Development & Production Area	US $100 per sq. km

Source: MPA

Other Rentals

Article 12.2 of the MPA stipulated this to include taxes, duties, fees or other imposts of a minor nature and amount insofar as they do not relate to the stamping and registration of this (1) Agreement, (2) any assignment of interest in this Agreement, or (3) any contract in respect of Petroleum Operations between Contractor and any Subcontractor.

Technology Allowance

A onetime payment by the Contractor to assist GNPC procures plants, equipment and machinery required for petroleum operations (MPA, 2000).

Training Allowance

The contractor is required to either spend a predetermined amount of money on training for the local staff or give that amount of money to the government so that they can provide training.

Decommissioning

The decommissioning of oil fields at the end of production has become a fiscal issue due to the cost involved. For example, in 1989 the cost of removing the 218 offshore installations in the UK area of the North Sea was estimated then as high as 8 billion pounds sterling. In modern times some governments insist that investors post performance bonds as security for decommissioning obligations. Under the Jubilee Field contract, it is the responsibility of the IOC's to decommission the field (MPA 2000).

Domestic Market Obligation

Some contracts specify that a certain percentage of the E&P Company's share of profit oil be sold to the local government, typically at a price that is less than the current market price. This requirement is referred to as the domestic market obligation and is often included in situations where the country's demand for crude oil is greater than the government's share of production. The domestic market obligation reduces the government's need to rely on imported oil or oil from more expensive sources (Jennings, Feiten and Brock 2000). By Article 15 of the MPA, in the event that Crude Oil available to the State is insufficient to fulfill the Domestic Supply Requirements, Contractor shall be obliged together with any third parties which produce Crude Oil in Ghana, to supply a volume of Crude Oil to be used for such Domestic Supply Requirements.

Overview of Incentives to the IOCs

Cost Recovery: The PAs of the Jubilee Field operation allows full cost recovery relating to the upstream chain of exploration, development and production, as well as Service and general administrative expenses incurred in the course of the project. Johnston (2008) noted that this can result in "goldplating" as in Sakhalin oil field in Russia where IOCs kept cost high and deprived the government share of the petroleum revenue. Cost recovery in Angolan oil field is fixed at 50% but can be increased under certain circumstances (Kaiser and Pulsipher, 2004). Coker (2012) noted that Ghanaian hybrid fiscal system incorporates a sliding scale mechanism that changes the profit oil split as production increases and costs are recovered and will lead to a higher take for Ghana if profit split increases. However, IMF (2012) identified that as a result of political myopia, host governments may prefer revenue to accrue early in the life of a project.

No Export and Import Duties: By article 12.4 of MPA Contractor shall not be liable for any export tax on Petroleum exported from Ghana and no duty or other charge shall be levied on such exports. Vessels or other means of transport used in the export of Contractor's Petroleum from Ghana shall not be liable for any tax, duty or other charge by reason of their use for that purpose. By article 12.5 of MPA subject to the local purchase obligations hereunder, Contractor and Subcontractors may import into Ghana all plant, equipment and materials to be used solely and exclusively in the conduct of Petroleum Operations without payment of customs and other duties, taxes, fees and charges on imports save minor administrative charges.

Ring Fencing: This is a fiscal policy that limits the recovery of cost and deductions to a particular unit or block, without offsetting the cost incurred against revenue earned from another block. Under the Jubilee Field project, there is no ring fence so cost incurred on a block can be offset by revenue from another block. This reduces the profit of the project, but encourages reinvestment and attracts new investors Marful-Sau (2013). However, Tordo (2007) noted absence of ring fencing make the HG end up subsidizing unsuccessful exploration. The government decided to review the element of ring fencing beginning 2012 fiscal year to prevent companies undertaking a series of projects from deducting costs from new projects against profitable ventures yielding taxable income (MoF, 2012, budget statement, item 195). According to Baunsgaard (2001), ring fencing is introduced to protect present tax revenues, which could otherwise be postponed through continuous deductions.

No Payment of Signature Bonus: Signature bonuses are single lump sum payments which give government early revenue for its developmental projects but become a sunk cost for companies that they may recover only in the event of successful development, and even then the fact that they are sunk may pose new political risk if a project is especially profitable. Signature bonuses are in some exploration rights have been very large (US$1billion experienced in Angola 2006). Under the Jubilee Field Contract, the IOC’s do not pay bonuses such as signature or production bonus. The payment of such bonuses, which are frontend in nature, could delay the production programme as it increases the initial cost of the project (Marful-Sau 2013).

Carry-Over of Tax Losses Indefinitely: Contractors may carry forward tax losses indefinitely (Ernst & Young 2015). By section 3 of the PITL, losses are carried forward indefinitely. However, some tax experts agitate that there must be a sunrise-sunset clause to limit the number of years losses can be carried forward. Losses in Gabon can be carried forward until the third fiscal year following the deficit period.

No Value Added Tax (VAT): The PA states that Contractors, their Subcontractors and Affiliates are not subject to VAT and as such the Ghana Revenue Authority issued VAT Relief Purchase Orders (VRPOs) to the Contractors to relieve them from the payment of VAT (White 2013).

No Dividend Tax: Dividend income is taxable under the IRA but dividend income earned by investors in a company carrying on upstream petroleum operations in Ghana is not subject to any tax (Ernst & Young 2015).

Investor Attractive Fiscal Regime Package

Ghana’s fiscal regime for the upstream oil and gas industry was deemed as investor attractive (Marful-Sau 2009). In the Strategic Policy Framework for Ghana’s Energy sector, it was emphasized that “a more competitive and flexible fiscal regime would enable Ghana to attract investments from companies with the requisite financial and technological capabilities” (Ghana Energy Commission 2006:115). This was the policy framework which practically gave the force and political drive to vehemently push Ghana into the new age of crude oil production. The position of Ghana initially was to table in attractive package to lure the IOCs to flood in Foreign Direct Investment (FDI) in her oil and gas sector.

Conclusion

Ghana’s oil and Gas Industry has inadequate laws and regulatory framework

The laws which regulates the upstream petroleum industry in Ghana were made over three decades ago and are now undergoing major amendments. These laws include the petroleum (Exploration and Production) Law 1987 (PNDCL 84), Ghana National Petroleum Corporation Law of 1983 (PNDCL 64) and Petroleum Income Tax Law of 1988 (PNDCL 188). These key laws were made in a dispensation of few geophysical data of Ghana’s oil and gas industry. The prevailing social, economic and politics were also different and the price package for the commodity worldwide was not too attractive as today. Thus, the laws are having some tax administrative loopholes, incoherence of certain key terms and provisions, and inadequate in modern oil and gas tax assessment. The laws were too fragmented, sometimes conflicting, and arguments often erupt on which one to go. These laws also had unclear and varied interpretation. This had made it difficult for the nation to tackle tax avoidance mechanisms such as transfer pricing, thin capitalization, and tax evasion in her newborn oil and gas industry. Ghana is said to be losing millions of dollars every year due to these laws inability to deal with complex tax issues in the industry. The GRA is now amending the various laws and harmonizing them under one code to meet the ongoing and future challenges in the oil field and other administrative machinery.

The motive for Ghana's choice of the prevailing fiscal regime was to attract investors

The fiscal regime of Ghana's upstream petroleum industry was initially designed to attract foreign investors to invest in the new capital intensive industry which the nation and her local capacity find difficult to venture. This was in line with the strategic energy policy framework designed to unleash Ghana's dream of becoming oil producing country. The policy direction focused on a more competitive and flexible fiscal regimes and "even-handed" regulation to encourage investment in the upstream oil and gas industry. Ghana was very eager to adventure petroleum in her deepwater offshore together. The fiscal regime allowed full capital cost recovery and profit sharing. It also offered relative lower and competitive royalty and income tax rates. So fiscal regimes enshrined in the PA were liberal to encourage the IOCs to invest their huge but scarce capital.

Inadequate Administrative Capacity to assess and collect petroleum taxes

Ghana lacked the state of the art machinery to determine the production of crude oil and the amount to assess to tax. The nation failed to estimate appropriate corporate income tax to receive in 2011. This affected the fiscal performance of the government in the respective year because actual revenue received from the oil fields were far short of what was budgeted. This experience showed that the nation did not have the adequate capacity in terms of the human expertise and the machinery to forecast her own petroleum revenue generation correctly and also the amounts to assess to tax.

Elements outlined in the PAs constituted an enclave fiscal regime

The fiscal regime outlined in each individual contractors PA determined "what" and "how much" to pay as tax to the government of Ghana. Though other laws provided for some level of fiscal elements, what is agreed between the government of Ghana and the Contractor became the final reference point for what and how much the contractor is obliged to put in the state's basket. This made the other laws just administrative tools to help administer the revenue streams. The PA also offered stability clauses which freezes the terms of the agreement during the contractual period. This means that any negligence or failure to provide for something in the PA is totally forfeited.

RECOMMENDATIONS

Ghana's tax laws must be amended and harmonized under one tax code as quickly as possible to address any subsequent challenges in the petroleum operations. All the tax laws of Ghana including those relating to the petroleum sector must be amended to reflect and tackle both current and future challenges. The action of the GRA to harmonize all tax laws under one code must be supported and implementation done as soon as possible.

The government must ensure adequate capacity is built to monitor production and cost, assess and collect the due amount of petroleum tax revenue for the state. The capacity building of GNPC and GRA is very crucial and necessary to enable them monitor petroleum operations very effectively and also to update and harmonize the tax laws as quickly as possible to salvage the nation from subsequent tax revenue loss. Sophisticated accounts persons with the expertise in the field of petroleum taxation should be engaged. Capacity building of GNPC is inevitable so that it can continue to increase its working interest in subsequent discoveries (as they now have 15% working interest in Sankofa), and to effectively manage the natural gas infrastructure.

Ghana must endeavour to achieve stable and conducive social, economic and political environment as they influence the government ability to negotiate for higher and better terms. These factors largely affect the bargaining power of government in negotiating higher terms in petroleum agreement. Ghana is noted for peace and political stability in the African region. However, incidence such as frequent workers strike actions, demonstrations, tribal and religious clashes, and the likes should be abated since it also counts in the overall rating of the social and political atmosphere of the country. Laws and regulatory framework must work and seen to be working in everyday life of the country. Stable and conductive macro-economic environment in areas such as inflation, interest rates, exchange rate, infrastructural, energy supply and human capital development is a key to benefiting from the rich oil resources.

The government must ensure implementation of local content and participation law since that is the most effective way to ensure both forward and backward economic linkage of petroleum activities, especially in the long term. The government must ensure to empower local enterprises to venture into providing goods and services in the upstream, midstream and downstream. The regulatory authorities must also ensure that goods and services that can be obtained locally here by the IOCs are not outsourced abroad.

The government of Ghana and state institutions must ensure transparency in the industry.

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