

Overview: Ghana's Oil and Gas Fiscal Regime



Petroleum Commission

**Clarification Meeting with
Parliament**

20th February , 2016



Outline



- Introduction
- Types of Petroleum Fiscal Systems
- What is Ghana's Upstream Petroleum Fiscal System?
- Overview of Ghana's Fiscal System
- PC's Response to GIGS Concerns about Ghana's Fiscal Regime
- Observations and Summary



Several types of petroleum contracts are in use throughout the world:

- **Concessions** – Principally, the contractor owns the oil in the ground and Government benefits come in the form of Royalty and Taxes. Some have “Additional Make-up” in “Government Take” calculations. 92 countries use concessions (some have both concessions and PSAs)
- **Production Sharing Agreements (PSA)** – PSAs are drafted such that a contractor can extract the oil on behalf of the government and owns a share of oil once it is out of the ground (81 countries use PSAs).
- **Service Contracts** - The contractor receives a fee for extracting the oil from the ground
- **Joint Ventures (JVs)** – In this arrangement the state enters into partnership with one or more oil companies.



Concessions (Introduced in 1800s)

Main Advantages (Governments)

- More straight forward – The degree of professional support and expertise required is often less complex
- Government keeps the fees paid by contractor regardless of whether commercial oil is found and production takes place
- All financial risks of development, incl. costs of exploration, are absorbed by the contractor

Main Disadvantages (Governments)

- Bidders tend to be more cautious in their bids
- Oil and gas reserves not proven do not give enough assurance that Company's costs will be covered



PSAs (First introduced in Indonesia in 1966)

Main Advantages (Governments)

- All financial and operational risk rests with IOCs
- Host Government has added advantage to share any potential profits without having to make an investment, unless agree to do so

Main Disadvantages (Governments)

- PSA puts on Governments premium on highly professional negotiations
- Government must have access to tech; environmental, financial, commercial, and legal expertise
- More feasible for some oil-rich countries than others.

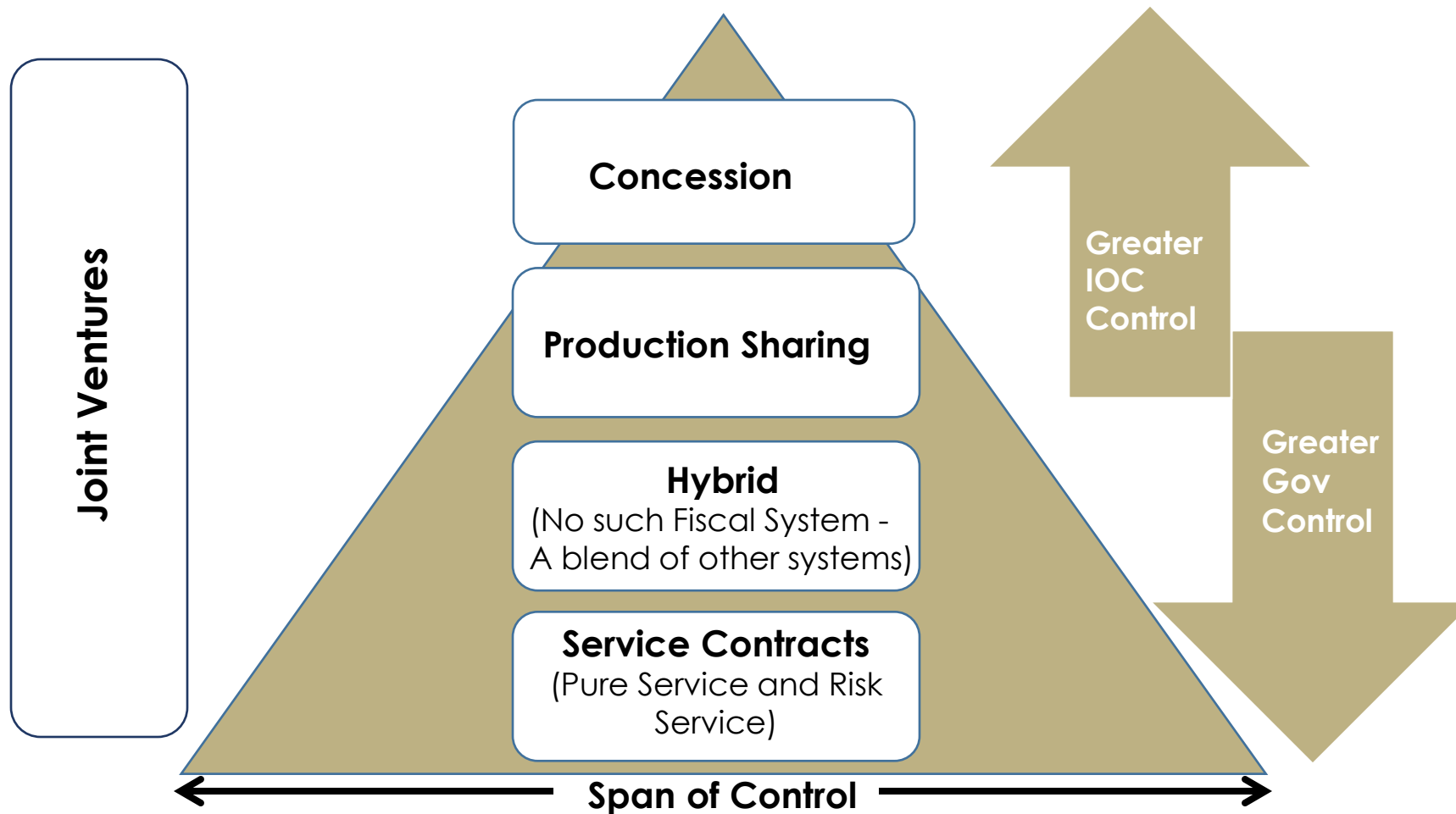
Global Shift Away from Concessions



- Considered one-sided - favouring companies
(According to “Revenue Watch”)
- End of World War II resulting in a rising wave of independent oil companies
- Competition for foreign exploration acreage increased
- Many of resource rich countries of today were dependencies, colonies/protectorates and needed to shake off colonial ties
- Indonesia enactment Law No. 44 in 1960 initiating ‘Contracts for Work’ speeded the end of the Concession era
- The balance of power tilted in favour of the host country Governments



Current View of the World (Span of Control)





Countries using PSAs (81)

Africa		Africa(Cont/-)		South America	
1	Algeria	31	Togo	1	Argentina
2	Angola	32	Uganda	2	Bolivia
3	Republic of Benin	33	Zaire	3	Brazil
4	Cameroon	34	Zambia	4	Chile
5	Chad			5	Ecuador
6	Cote D'Ivoire			6	Peru
7	Dem. Republic of Congo	Asia & Australasia		7	Uruguay
8	Egypt	1	Bangladesh	Eastern Europe	
9	Equatorial Guinea	2	China	1	Albania
10	Eritrea	3	Indonesia	2	Azerbaijan
11	Ethiopia	4	Laos	3	Bulgaria
12	Gabon	5	Malaysia	4	Croatia
13	Guinea	6	Mongolia	5	Georgia
14	Kenya	7	Myanmar	6	Kazakhstan
15	Liberia	8	Nepal	7	Kyrgyzstan
16	Libya	9	Philippines	8	Romania
17	Madagascar	10	Sri Lanka	9	Russia
18	Mali	11	Timor Cap	10	Serbia
19	Mauritania	12	Vietnam	11	Turkmenistan
20	Mozambique	Central America & Caribbean		12	Ukraine
21	Morocco	1	Antigua	Europe	
22	Niger	2	Belize	1	Malta
23	Nigeria	3	Cuba	Middle East	
24	Senegal	4	Guatemala	1	Bahrain
25	Sudan	5	Haiti	2	Iraq
26	South Sudan	6	Honduras	3	Jordan
27	Somaliland	7	Netherlands Antilles	4	Oman
28	Sierra Leone	8	Trinidad & Tobago	5	Qatar
29	Namibia			6	Syria
30	Tanzania			7	Yemen

Countries Using Concession (92)



1	Abu Dhabi	32	Greece	63	Poland
2	Algeria	33	Greenland	64	Portugal
3	Angola*	34	Haiti	65	Puerto Rico
4	Argentina	35	Honduras	66	Romania*
5	Australia	36	Hungary	67	Russia*
6	Austria	37	Iceland	68	Senegal *
7	Bahamas	38	Ireland	69	Serbia
8	Barbados	39	Israel	70	Seychelles
9	Belgium	40	Italy	71	Sierra Leone
10	Brazil*	41	Japan	72	Slovakia
11	Brunei	42	Kazakhstan*	73	Slovenia
12	Bulgaria	43	Latvia	74	South Africa
13	Canada	44	Lithuania	75	South Korea
14	Central African Republic	45	Malawi	76	Spain
15	Chad	46	Maldives Islands	77	Sweden
16	Chile	47	Mali*	78	Switzerland
17	Columbia	48	Mauritius	79	Taiwan
18	Costa Rica	49	Moldova	80	Thailand
19	Czech Republic	50	Montenegro	81	Tonga
20	Denmark	51	Morocco	82	Trinidad & Tobago *
21	Dominican Republic	52	Namibia	83	Tunisia
22	Ecuador	53	Netherlands	84	Turkey
23	El Salvador	54	New Zealand	85	UAE
24	Faroe Islands	55	Nicaragua	86	Ukraine
25	Fiji	56	Nigeria*	87	Ukraine*
26	France	57	Norway	88	Uruguay*
27	French Guiana	58	Pakistan*	89	USA
28	Gabon *	59	Panama	90	Venezuela
29	Gambia	60	Papua New Guinea	91	Zambia
30	Germany	61	Paraguay	92	Zimbabwe
31	Ghana	62	Peru		

What Fiscal System to Choose?



- Various forms of Fiscal Systems exist in different parts of the world.
- Fiscal systems are designed to suit a country's individual needs taking into account:
 - Level of perceived exploration, development and production risks;
 - Bearer of the risks;
 - Ownership of the resource base
- *Generally Fiscal systems are intended to achieve objectives, including:*
 - *Attracting technology and investments*
 - *Monetizing oil and gas assets (asset has no value unless developed);*
 - *Knowledge transfer*
 - *Local content maximisation*



What Fiscal System to Choose?...Cont/-



- No one type of fiscal regime is better than the other
- Headline names by themselves don't matter
- However and according to [Revenue Watch Institute \(RWI\)](#) all oil contracts must address two key issues:
 - How profits, often called "rents", are divided between Host Governments and IOCs and
 - How costs are to be treated.
- Fiscal Systems can be designed to yield the same Government Take.



Ghana's Upstream Petroleum Fiscal System - What is it?



- Ghana's Petroleum Fiscal Regime refers to a set of laws, regulations and agreements which;
 - *Regulate Ghana's petroleum operations and*
 - *Define the Host Government and the Contractor's share of economic benefits accruing from petroleum exploration and production.*
- To achieve this, Ghana has adopted a fiscal system which mixes some elements of Concession, Production Sharing Agreement (PSA) and State Participation.



- Many have described the Ghana's Fiscal System as "Hybrid". For example,
 - Dr Amoako-Tuffour et al in a paper published in the Ghana Policy Journal (vol. 4, Dec 2010).
 - Frieda Quagraine in her case study of the Jubilee Field in 2012,
- There is no fiscal system called “Hybrid”, there is also no fiscal system called pure Royalty/Tax System with State Participation.
- Royalty/Tax Systems have mostly evolved from Concessions and PSAs.
- According to [Understanding Oil Contracts, OpenOil](#) “it is rare to find any contract that fits cleanly into any one of these categories, however, and in reality most contracts combine some elements of each”.
- Almost all fiscal systems are a blend of other fiscal systems and Ghana's is no exception.

Ghana's Upstream Petroleum Fiscal System- What is it?



- Basis of Ghana's fiscal system is Concession and PSA therefore giving rise to what some refer to as Royalty/Tax System with State Participation.
 - Earlier Concession Agreements and PSAs clawed back super-normal profits through "Additional Make-up" and "R" Factor mechanisms – in the form of additional tax.
 - Ghana's response to this is Additional Oil Entitlement (AOE).
- Concept of State Participation was originally introduced by Indonesia (enactment law no. 44 in 1960) causing a global shift from Concession to PSA.
- Indonesia's PSAs gave management and administrative control of contracts, budget and work program approvals to state company (Pertamina) - The origin of state participation, as seen in Ghana's fiscal system.
- Licensing, training and other upfront fees such as surface rentals, etc.; are all elements of PSAs.
- Ghana's fiscal system - whether Royalty/Tax system or "Hybrid" has a blend of Concession and PSA.

The Key Laws and Regulations that govern Ghana's Fiscal Regime



- 1992 Constitution of the Republic of Ghana
- Petroleum Exploration and Production Law, 1984, (PNDC Law 84)
- Petroleum Income Tax Law, 1987 (PNDCL 188) (Income Tax Act, Act 896*)
- Petroleum Commission Act (Act 821)
- The Ghana National Petroleum Corporation Law, 1983, (PNDCL 64)
- Petroleum (Local Content and Local Participation) Regulations, 2013 L. I. 2204

Key Elements of Ghana's Fiscal System



- Other Taxes and Fees
 - Surface Rental
 - Withholding Tax
 - Annual Training Fees and
 - Technology allowance
- Royalty
- Government Participation
 - Initial Interest
 - Additional Interest
- Petroleum Income Tax
- Additional Oil Entitlement (AOE)



Ghana's Fiscal System: Royalties and Taxes



Royalty

- Percentage of gross production of hydrocarbon to be given to the State as Royalty.
 - Oil production - Ranges from 4% - 12.5% of gross production;
 - Gas production - Ranges from 3% - 10% of gross volume.

Petroleum Income Tax

- Petroleum Income Tax Law (PITL) sets default rate at 50%, unless a Petroleum Agreement makes alternative provision.(Income Tax Act, ACT 896**)
 - In all Petroleum Agreements signed currently (*including that for Jubilee, TEN and OCTP*), the rate has been set at 35%, 10% higher than the corporate profit tax rate.





Other Taxes and Fees

- Includes Surface Rental fees and Withholding Tax on subcontractors
- Annual Training Fees and one-time Technology Allowance

Additional Oil Entitlement (AOE)

- An additional payment is to be made to the government if the post tax Rate of Return for a project exceeds a targeted level.
 - For example, trigger points at 12.5%, 17.5%, 22.5%, and 27.5% RORs, AOE terms become more progressive over time.

Ghana's Fiscal System: Govt. - Participation



Government Participation

- Initial Interest
 - GNPC on behalf of the State is entitled to hold 10% -15% interest in any petroleum operations
 - GNPC does not pay exploration and development cost but pays production expenses.
- Additional Interest
 - GNPC on behalf of the State can opt to acquire a negotiated additional interest after the discovery of oil and gas in commercial quantities
 - GNPC does not pay the exploration cost but contributes towards development and production costs.

Ghana's Fiscal Regime System Flow Arithmetic



Contractor Share

\$49.23
(\$18.37)
\$30.86 (49.23-18.37)
(\$10.8)
(\$2.46)
\$17.6
44% (17.6/(60-20))

Fiscal Regime

Gross Revenue @ \$60
Royalty @5%
Revenue Post-Royalty \$57
Cost \$20 (\$11 Dev't, \$9 Prod)
Taxable Income
Corporate Income Tax @35%
AOE
Net Revenue (AT NCF)
Take

Government Share

\$3.00
CAPI \$7.77
(\$1.63)
\$10.8
\$2.46
\$22.4
56% (22.4/(60-20))

PSA System Flow Arithmetic



Contractor Share

(\$20)
\$22
(\$4.4)
\$17.6
44% (17.6/(60-20))

Fiscal Regime

Gross Revenue @ \$60
Cost Recovery (40% Limit)
Cost \$20 (\$11 Dev't, \$9 Prod)
Profit Oil (\$40)
Profit Oil Split (55/45)
Corporate Income Tax @20%
Net Revenue (AT NCF)
Take

Government Share

\$18
\$4.4
\$22.4
56% (22.4/(60-20))



What Ghana's Fiscal System has in Common with PSA – Key Provisions

Management
and
Control

Minimum
Work
Obligation

Relinquishment

Government
Participation

Cost Recovery Cap/
Capital Allowances*

Front Loaded
Bonuses, Rental
/Royalty**

Local Content

Stabilisation

Term

* PSAs have a cap on cost recovery and Ghana's system has a capital allowance

** PSAs have front loaded bonuses while Ghana's system has royalties.

Both yield the same results



PSA: 'Cost Recovery'

- The cost recovery mechanism allows an agreed maximum (ceiling) percentage of revenues (cost oil) to be used by the contractor to recover pre-defined "petroleum costs". Typically, the ceiling for cost oil (for cost recovery) ranges between 40 - 60% each year.
 - *The ceiling for cost oil guarantees income each year to the Government ("profit oil") as is the case with Royalty.*
 - *Unrecovered costs in any year can be carried forward and recovered in subsequent years (Unlimited carry-forward of losses).*

Ghana's Fiscal System: Capital Allowance

- 5-year straight-line capital allowance deduction for exploration, appraisal and development costs and other capital expenditures from petroleum revenues



Thin Capitalisation

- Ghana's Petroleum Income Tax Law (PITL), 1987 (PNDCL 188) did not impose explicit limits on the deductibility of interest expenses. This is now partly addressed in the new Income Tax Act, 2015 (Act 896)- Slide 24.

Standardisation of Contracts

- Several elements of the regime are open to contractual variation, leaving Government Take from the resource subject to potential ad hoc negotiation.
- Fiscal terms should be defined upfront to avoid protracted negotiations

Front Loading

- There is minimal front loading in Ghana's Fiscal System





Challenges to Ghana's Fiscal System



Recoverable Costs

- Ascertainment of recoverable costs
 - There is the need for some revision of the list of allowable and deductible costs in Ghana's Fiscal Regime.

Capital Allowances (Cost Recovery Limits)

- The capital allowance provisions in the PITL are based on costs rather than revenue





Positive Aspects of Ghana's Fiscal System



Ghana's fiscal system in comparison with other similar fiscal systems of relatively new oil producing countries is very competitive.

Some of the positive aspects of Ghana's fiscal system include:

- Attractiveness to investors
- Guaranteed minimum Government Take through the payment of an ad-valorem royalty
- Additional Oil Entitlements calculated on the basis of Rate of Return ensures that Ghana can capture a progressively large share of oil revenue in high profitability environment.
- GNPC has Initial and Additional Participating Interests in each field
- Higher tax rate of 35% compared with the Corporate Income Tax of 25%
- Minimal front loading



Improvements to Ghana's Fiscal Terms (2004 – 2014)



- Increased Royalty (oil and gas) and Participating Interest
Jubilee Field – DWT: 5% for Oil, 3% for Gas. WCTP: 5% for Oil, 5% for Gas
Heritage/Blue Star: - 12.5% for Oil' 10% for gas
- Lower AOE thresholds and higher taxes for each band
Jubilee - ROR of up to 19% = 0% AOE
Heritage/Blue Star: - ROR of up to 12.5% 0% AOE
- Higher surface rentals, training allowances and technology allowances
(1st generation between \$30-\$75 per sq. km; 2nd generation vary between \$50 - \$200/Sq. Km depending on the period)
- These have yielded significant increase in Government Take from approx. **58%** in the Jubilee Field to approx. **73%** in the South West Tano Contract Area



Evolution of Ghana's Fiscal Terms (2004 – 2014)

	Jubilee Field	Heritage/Blue Star Contract Area
Name of Contract Area	Deep Water Tano and West Cape Three Points	South West Tano
Date of Contract	2004 - WCTP, 2006 - DWT	2014
Term of contract	30 Years	25 Years
Royalties	DWT 5% for oil, 3% for gas. WCTP 5% for oil, 5% for gas	12.5% for oil, 10% for gas
Corporate Income Tax	35%	35%
Additional Profit Tax	DWT ROR < 19%, 0% tax 19%<ROR<20%, 5% tax 20%<ROR<25%, 10% tax 25%<ROR<30%, 15% tax 30%<ROR<40%, 20% tax ROR>40% , 25% tax WCTP ROR < 25%, 0% tax 25%<ROR<30%, 7.5% tax 30%<ROR<40%, 15% tax ROR>40% , 25% tax	ROR < 12.5%, 0% tax 12.5%<ROR<17.5%, 10% tax 17.5%<ROR<22.5%, 12.5% tax 22.5%<ROR<27.5%, 20% tax 27.5%<ROR<32.5%, 25% tax ROR> 32.5%, 30% tax
State Participation	10% Initial interest , 3.64%* additional interest	12% initial interest, 13% additional interest,
Annual Rental	Surface rental rates vary between \$30-\$75 per sq. km depending on the period	Surface rental rates vary between: US\$50/Sq Km - US\$200/Sq Km depending on the period
Training/Technology Allowance	WCTP Training : from \$75,000/yr to US\$125,000/yr; WCTP Technology - US\$500,000 DWT Training : \$250,000/yr; DWT Technology \$400,000.yr	Technology allowance: US\$10,000,000. Training Allowance: US\$250,000/Contract yr.
Government Take	Approx. 58%	Approx. 73%



Ghana's New E&P Bill is in Parliament : Seeks to improve conduct of Petroleum operations:



- Minimum of 15% of initial interest + Additional interest to be determined in negotiation
- Introduction of fiscal elements such as front end bonus payments
- Royalty Rate, Acreage Fees and Bonus payments to be fixed in regulations



- The Income Tax Act, 2015 (Act 896) still places cost recovery limits on costs rather than revenue:
 - PC proposes that cost recovery limits – should be based on revenue rather than on costs - and ascertainment of allowable costs
- Regulator must approve all work programmes and budgets
- Since Ghana's Basins have been de-risked, we have the basis to charge bonuses

Issues addressed in the Income Tax Act and draft Petroleum (Exploration and Production) Bill



Thin Capitalization

- The Income Tax Act, 2015 (Act 896) disallows all interest deductions in excess for a 3:1 company debt to equity ratio. However, Act 896 does not set limit on the rate chargeable on the 75% debt portion of investment.

Ring-Fencing

- The Income Tax Act, 2015 (Act 896) ring-fences, for taxation purposes, all costs incurred under the PA prior to the approval of the PoD as well as all future costs in the approved development and production area as a separate petroleum operation to be taxed separately. Any cost incurred in the area outside the approved development and production area subsequent to the approval of the initial PoD is considered a new separate petroleum operation and will be taxed separately.

Capital Gains Tax

- Draft Petroleum (Exploration and Production) Bill provides for the payment of Capital Gains Tax in accordance with applicable laws (section 85).

Income Tax Rate

- The First Schedule of the Income Tax Act, 2015 (Act 896) states that the chargeable income of a person from petroleum operations for a year of assessment is taxed at a rate of thirty-five percent.



PC's Response to Ghana Institute of Government and Security (GIGS) Concerns about Ghana's Fiscal Regime

GIGS's Reference Documents:

1. "Four Years of Oil Production in Ghana under the Modern Concession System: An Independent Operational Result, 2010 -2014". Dated 27th February 2015)
2. The Petroleum Exploration And Production Bill 2014: Cluelessness Or A Conspiracy To Perpetuate Fraud And Robbery Of Ghanaians? (Date August 2015)





GIGS's Assertion/Position

- Ghana would have been better off adopting the “simplest” form of Production Sharing Agreement (PSA) when compared with the Fiscal System adopted by Ghana.
- Ghana has lost revenue from oil production because of Ghana's Fiscal System.
- The Petroleum (Exploration & Production) Bill falls short of what it can achieve and is detrimental to Ghana.



- GIGS's Report uses PSA Profit Oil Split of 60/40 (Government/Contractor) as "industry standard norm"
 - level of profit split depends on many factors. That statement is at best questionable as "industry standard norm" (early Indonesia model).
- Various forms of Fiscal Systems exist with each system tailored to each country's individual needs, including:
 - Attraction of technology and/investments (asset has no value unless developed);
 - Knowledge transfer;
 - Local content maximisation;
 - Level of perceived exploration, development and production risks;
 - Bearer of the risks;
 - Ownership of the resource base.



PC's Response: General (2)

At the point of negotiating the WCTP and DWT PAs there had been no prior major commercial discovery of oil and gas and the continental shelf had not been de-risked.

- Ghana's initial objective/interest was to seek investment and capacity building
- Ghana's fiscal system was tailored to achieve above objective
- The discovery of the Jubilee Field is a fruit of Ghana's (first generation) fiscal licensing strategy.

PC's Response: PSA calculation



The calculation of Cost Oil for production and capital costs are questionable

- GIGS's 'Government Take' calculation of \$6.4 billion assumed field costs of \$3.9 billion. Actual costs of Jubilee Field for the period was \$8.9 billion as at end-2015.
- Given cost differences, 'Profit Oil' to be shared under PSA, as calculated by GIGS, is not \$9.59 billion but \$3.93 billion – thus limiting both Government and Contractor's share.
- GIGS asserts - Ghana could have negotiated 60/40 profit split under PSA (Basis unknown) – this may have been so if geological and other economic conditions were favourable to Ghana during the negotiation of Jubilee

PC Response: Government Take



- GIGS states that “Government Take” is 21% from 2010-2014. This is assumed to include Corporate Income Tax , Royalty and CAPI
- **PC Response:**
 - Industry standard in the calculation of “Government Take” is generally done:
 - Over the economic life of the field and not just over the initial few years as initial years have “cost pool” to recover
 - As a share of government **economic profit** from the field and **not** as a share of gross income from the field.
 - Calculation of “Government Take”, using PC’s model for the first four years of the Jubilee Field is 50%, using the actual oil price
 - Government Take increases to approximately 58% at oil price of \$80/bbl for the life cycle of the project.

Table 1:Actual Ghana Government Take (2010-2014)



Revenue		Project	Government of Ghana	Contractor Group
Gross Revenue	\$MM	13,441.03 ³	1664.52	11,776.51
OPEX	\$MM	1,356.38 ²	171.17	1,185.21
Exploration & Appraisal CAPEX	\$MM	1,276.00 ²		1,276.00
Development CAPEX	\$MM	5,872.90 ²	197.83	5,675.07
Total Project Cost	\$MM	8,505.28 ²	369.00 ¹	8,136.28
Surface Rentals	\$ MM		2.15 ¹	
Royalty	\$MM	641.76	641.76 ¹	641.76
Corporate Income Tax	\$MM	501.50	501.50 ¹	501.50
Additional Oil Entitlement	\$MM	0.00	0.00	0.00
Before Tax NCF	\$MM	4,935.75	1,295.52	3,640.23
After Tax NCF	\$MM	4,935.75	2,440.94 ¹	2,496.96
State/Contractor Take	%		49.45%	50.59%

¹Information from Ministry of Finance Petroleum Revenue Reports

² Information from Kosmos and Tullow Cost Statements for the DWT & WCTP Contract Area

³Gross revenue calculated using weighted average of crude oil prices realized by the Ghana Group for liftings.



Table 2: Ghana Government Take (2010-2036) Assumptions

- 538 MMBBL of oil produced
- \$80/BBL oil price
- E&A Costs of \$340 MM
- Discount Rate of 10% from 2008
- No inflation

Table 2: Ghana Government Take (2010-2036) @\$80/bbl



Revenue		Project	Government of Ghana	Contractor Group
Gross Revenue	\$MM	43,075.58	5,875.87	37,199.71
Opex (incl. abandonment)	\$MM	6,233.66	850.32	5,383.34
Exploration & Appraisal CAPEX	\$MM	340.00		340.00
Development CAPEX	\$MM	6,406.67	233.26	6,173.41
Total Project Cost	\$MM	12,980.33	1,083.58	11,896.75
Royalty	\$MM	2,153.779	1,859.985	1,859.985
Corporate Income Tax	\$MM	8,255.579	8,255.579	8,255.579
Additional Oil Entitlement	\$MM	2,801.397	2,801.397	2,801.397
Before Tax NCF		30,095.25	4,792.289	25,302.96
After Tax NCF	\$MM	30,095.25	17,709.25	1,2386
State/Contractor Take	%		58.84%	41.16%



Table 3: Ghana Government Take (2010-2036) Assumptions

- 538 MMBBL of oil produced
- \$60/BBL oil price
- Discount rate of 10% from 2008
- No inflation
- E&A Costs of \$340 MM

Table 3: Ghana Government Take (2010-2036) @\$60/bbl



		Project	Government of Ghana	Contractor Group
Gross Revenue	\$MM	32,306.68	4,406.901	27,899.78
Opex (incl abandonment)	\$MM	6,233.658	850.323	5,383.335
Exploration & Appraisal CAPEX	\$MM	340		340
Development CAPEX	\$MM	6,406.669	233.2563	6,173.413
Total Project Cost	\$MM	12,980.33	1,083.579	11,896.75
Royalty	\$MM	1,615.334	1,394.989	1,394.989
Corporate Income Tax	\$MM	5,201.576	5,201.576	5,201.576
Additional Oil Entitlement	\$MM	350.9356	350.9356	350.9356
Before Tax NCF		19,326.35	3,323.322	16,003.03
After Tax NCF	\$MM	19326.35	10,270.82	9,055.532
State/Contractor Take	%		53.14%	46.86%



GIGS's Appendices

- GIGS assumes
 - Recoverable reserves of 2 billion barrels of oil
 - Jubilee Field (Ghana's largest) has recoverable reserves of 538 million barrels of oil (P1+P1A)
 - Production and capital costs are a % of gross revenue (10% and 10.5% respectively)
 - There is no basis for this assumption
 - Government take calculated as a % of gross revenue
 - Industry standard is to calculate it on net revenue



GIGS's Calculation of Government Take

WHAT THE PROJECTED POSITION OF GHANA WOULD BE UNDER THE CURRENT HYBRID SYSTEM -
MODERN CONCESSION AT 10% ROYALTIES, 15% CARRIED INTEREST, 3.75% ADDITIONAL INTEREST,
35% PROFIT TAX AND AT US \$ 60 PER BARREL COMPARED TO WORLD BANK AND IMF ESTIMATES

.....US\$.....US\$	
Total Estimated Revenue	120,000,000,000
Ghana 43.526%.....	52,231,120,000
Production Cost 10%.....	12,000,000,000
Capital Cost Recovery 10.50%.....	12,600,000,000
Total Direct Cost Of Production.....	76,831,120,000
Profit Due FOC'S	43,168,800,000

Due Ghana.....	52,231,120,000	43,526%
Government Take		

Due FOC's	US\$
Production Cost.....	12,000,000,000
Capital Cost Recovery.....	12,600,000,000
Profit.....	43,168,800,000
Total.....	67,768,800,000.....56.474%

Estimated Revenue Due Ghana by	IMF.....	WORLD BANK
.....	US\$20,269,000,000	US\$19,390,000,000
Percentage of Total Revenue		
As Government Take.....	16.89%.....	16.16%

The **World Bank** and **IMF** Estimates were based on Long Term Price of **US\$ 75.00** Per Barrel and
Earnings Include Royalties, Carried and Participation Interests and **Profit Taxes**

PC's Conclusion (1) on GIGS's Report



- No superiority of one contract type over the other: the level of government take is a function of prospectivity.
- The same financial result can be attained through the right combination of taxes and with effective monitoring and tax administration, regardless of which system is adopted
- Once a country benchmarks and determines its attractiveness, it can adjust its fiscal elements to achieve the desired Government Take
- Generally, in pure PSAs, Concessions and Royalty Tax Systems (as in Ghana), all contractor's costs are expected to be recovered over field life.
- Prudent cost management is therefore always critical in any fiscal system
- Note that Government Take is computed based on the net (not gross) revenues.



PC's Conclusion (2) on GIGS's Report

- GIGS uses the Jubilee Field fiscal terms in their analysis. The Jubilee PAs were negotiated at a time when Ghana's basins had not been de-risked. If South West Tano Fiscal Terms are applied to Jubilee data, government take rises to approx. 73%
- There is obviously room for Ghana to extract more rent within the current fiscal system commensurate with its risk profile
- Ghana's Fiscal System is as good as a Production Sharing Agreement and has all and perhaps more of key elements of PSA except Cost Recovery ceilings.



- “While numerous variations and twists are found in both concessionary and contract-based systems, from a mechanical and financial point of view there are practically no differences between the various systems.” – [Daniel Johnston \(2006\)](#)
- “While different families of oil contracts exist, Johnston remarked that the type of system may matter less than other design elements, including especially the design of the fiscal system.”
[Dr Joe Amoako-Tuffour \(2010\)](#)
- “... it would seem that whatever fiscal package Ghana can obtain under the PSC is also attainable under the Royalty Tax system which it has already adopted.... It is obvious then that from a purely fiscal point of view, it does not matter which one of the two systems Ghana adopts.” – [Nana Adjoa Hackman](#)
- “...it is possible to exactly replicate a particular scald regime using different combinations of scald instruments - for example a production sharing contract can be replicated by a combination of royalties and taxes.” – [World Bank \(2007\)](#)



QUESTIONS



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