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# Comparative analysis of upstream petroleum fiscal systems of three (3) petroleum exporting countries: Indonesia, Nigeria and Malaysia.

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## **Comparative Analysis of Upstream Petroleum Fiscal Systems of Three (3) Petroleum Exporting Countries: Indonesia, Nigeria and Malaysia**

Babajide, N. A.<sup>a\*</sup>, Ogunlade, C. A.<sup>b</sup>, Aremu, D. O.<sup>c</sup>, Oladimeji, S. T.<sup>d</sup>,  
Akinyele, O. A.<sup>e</sup>

<sup>a</sup>*Centre for Energy, Petroleum and Mineral Law and Policy, University of Dundee, UK*

<sup>b</sup>*Department of Agricultural and Environmental Engineering, University of Ibadan, Nigeria*

<sup>c,d,e</sup>*Federal College of Agriculture, Moor Plantation, Apata, Ibadan, Oyo State Nigeria.*

<sup>a</sup>*Email: babajidenathaniel@yahoo.com*

<sup>b</sup>*Email: clement2k5@yahoo.com*

### **Abstract**

The role of oil: its output and infrastructure and technology in the world are established. Exploration and Exploitation of oil is not only significant as a revenue generator but has become indispensable in the world economy especially as a result of the inability of world economy to find a better substitute. The recent decline and fluctuation arising from oil sector over the decades have prompted a reassessment of petroleum fiscal systems. The research compares the current upstream fiscal systems of three oil exporting countries: Nigeria, Indonesia and Malaysia. The approach adopted for this study is a review of the existing literature on fiscal regimes; the focus is an objective presentation of empirical evidence. The methodology involved desktop research which looked into published literature. Based on the evaluation, the paper arrived at possible conclusions and implications for oil fiscal regimes for the respective countries and the world fiscal systems in general.

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\* Corresponding author.

E-mail address: babajidenathaniel@yahoo.com.

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## **1. Introduction**

The impact of oil on the world economy since its discovery in 18th century cannot be overemphasized; compared to other sectors of the economy the oil industry has special attention which stems from the fact that it has continuously sustained other sectors of the economy by providing world energy not only for agriculture and transportation [1] but has specially become a source of revenue for most oil exporting countries in developed countries and less developing one in particular. The quest for oil exploration was only carried out by small number of companies until after the 1960; there now exists more than 300 oil companies exploring oil in two or more countries; also exploration by private multinational oil companies occur in more than 150 countries in the world. Exploration and exploitation of petroleum occurs on the basis of contracts, leases and concessions granted by government of respective countries based on the established law [2]. Thus in the oil industry whether of private or public companies 'fiscal regimes' have become fundamental aspects of exploration and exploitation contracts; it is described as a key factor in decision making both by host government, stakeholders and investors.

Fiscal system refers to "all the payments to government required under a petroleum arrangement"; according to [3] it is defined as the "framework which the government of an oil producing country employs in managing, regulating and sharing the revenues that accrue from the stages of exploitation". It includes bonuses, royalties, corporate income taxes and other special taxes. A country's fiscal system represents the mechanisms "by which the host government can capture the economic rent from the exploitation of the petroleum resource"[1]. This has profound implications: design of the optimal fiscal system has a direct bearing on macroeconomic indicators such as fiscal and trade balance as the constitutes up to 20% of revenue to developed countries government and make up a huge chunk of up to 83% of government revenue in less developed countries. Besides, fiscal model do not only impact a country's exploration and exploitation activities but also the ability of a country to replace reserve [4].

Furthermore, it has been stated that fiscal regimes have been responsible for the massive fluctuation that have become common in the world oil industry. The urge to get as much revenue as possible from a "non-renewable patrimonial resource" has not only led to the evolvement of varying petroleum fiscal systems but has seen many countries fiddle with one fiscal regime for petroleum after another [1]. In some countries there are various fiscal systems for different activities in the oil sector while in some other countries "a single fiscal system applies to the entire country" [2]. There are currently more than 226 fiscal systems for 144 petroleum exporting countries.

Based on the above the aim of this paper is to evaluate the different petroleum fiscal systems in the World Oil Industry while looking ineptly at the petroleum fiscal systems of three oil exporting countries. A comparative analysis would show the varying fiscal stance of the different countries; this paper will examine the countries experience in developing their upstream sector; patterns of different fiscal system adopted. This paper also gives an insight into the contract terms of one country relative to the others for given set of fiscal regimes thereby generating possible policy implications and thus suggestion for 'reasonable' actions.

The objectives of the study are: (I) to review worlds fiscal regimes while benchmarking its impact against key features of importance to host government and oil contractors, (ii) to review individual countries current upstream fiscal regimes; and (iii) to provide a comparative examination of three oil exporting countries fiscal regimes. The research covers fiscal systems in general and trickle down to fiscal systems of three oil exporting countries: Malaysia, Nigeria and Indonesia. It will cover history, trends, patterns and fiscal systems of oil and gas industry in general and of the three countries in particular.

The rest of this paper would be as follows: section two outlines the individual countries fiscal systems; section three presents a comparative assessment of the three oil exporting countries earmarked for this study focusing on their capture of rents and government take, cost containment and cost recovery provisions, avoidance of revenue leakage, income and profit tax provisions and administrative simplicity. Summary, implications and conclusion follow in section four.

## **2. Upstream Fiscal Systems in Oil Producing Countries**

Researchers, academicians and professionals have over the decades paid maximum attention to fiscal systems and its attendant variables on the economics of non-renewable resource exploitation. According to [4], petroleum fiscal systems do not only determine decision making by investors and government but also set the tune by which costs are recovered and profits shared equitably. Table 1 shows the degree of various fiscal systems in the world.

Table 1.Fiscal Systems in Major Oil Producing Areas

<b>Fiscal Systems</b>	<b>Countries</b>
Very Favourable	Ireland, Spain, United Kingdom, Argentina, New Zealand, Pakistan (Zone 1) And Denmark (Fourth Round)
Favourable	Northwest Territories (Canada), Illinois, Peru, Australia (Offshore) And United States Shelf (Gulf Of Mexico, Deep)
Average	The Philippines, United States Outer Continental Shelf (Gulf Of Mexico, Shallow), Thailand (Gulf, 1995 Terms), China (Offshore), Malaysia (Deep Water) Nigeria (Offshore To 200 Meters), Vietnam And Trinidad And Tobago (Onshore)
Tough	Kazakhstan, Alaska (Onshore), Ecuador (Regular Terms), Texas (Offshore), Alberta (Third-Tier Oil), Netherlands (1995 Terms), Norway And India.
Very Tough	Louisiana, Russia (Production Sharing Contracts), Venezuela (New Model Contract), Indonesia (1994 Terms), Malaysia (Conventional), Angola, Nigeria (Niger Delta), Syria And Yemen.

Source: Culled from [2]

## **2.1 Malaysia**

### **2.1.1 Country and Industry Overview**

Malaysia is a federal constitutional monarchy found in Southeast Asia. It consists of thirteen states and federal territories and has a landmass of 329,847 square kilometres separated by the South China Sea into two similarly sized regions: peninsular Malaysia and Malaysian Bornea [5]. Malaysia shares its border with Singapore, Vietnam and the Philippines. As a Maritime nation, Malaysia has one of the largest continental shelves and a distance of 200 nautical miles of exclusive economic zone. Malaysia is surrounded by many seas; these seas are not only important to Malaysia only in terms of tourism and livelihood but they are also rich in various resources including the most economically valuable: oil and gas [6].

Malaysia's first discovery non-renewable resource exploitation started with the discovery of crude petroleum in 1910, when Shell discovered crude on Canada Hill in Miri, Sarawak; Shell Miri No. 1 was struck on August 10 in the same year, and began producing 83 barrels per day (bbls/d) in December 1910 of the same year. However, the same oil well 'Grad Oil Lady' as is affectionately referred to have now become a state monument. Today Malaysia has approximately 615,100 square kilometres of acreages available for Oil and Gas Explorations. Petroleum exploration in Malaysia is made up of a combination of shelfal shallow waters as well as deepwater environments [6]. The first deepwater discovery was Murphy Oil in 2002, the 440 million barrels Kikeh area, lies in around 1,340 meters in offshore Sabah. In terms of licensing, over 50 new licenses have been signed since 1996 as a number of new companies have entered the Malaysian upstream arena, which has increased the level of diversity of operatorship.

The oil and gas industry in Malaysia is divided into Upstream, midstream and downstream activities. The upstream activities are made up of exploration, development and production of oil and gas; the midstream and downstream boast of a combination of transportation (tanker and pipelines), refining and processing, through to marketing and trading of end products [6]. Oil and gas Industry/sector contributed 20% to the overall Gross Domestic Product (GDP) [7]; of these upstream petroleum sector accounts for 78.38% with a total contribution of RM87 while the downstream sector with a total of RM24 contributes only 21.62% in the last decade, growth in the upstream sector of Malaysia has been driven more by rising prices in oil and gas than by increased in production. Nearly all of Malaysia's oil comes from offshore field. The continental shelf is divided into three producing basins: the Malay basin in the west and the Sarawak and Sabah basins in the east [6].

The major player in the Malaysian oil and gas sector is country's national oil corporation called PETRONAS which plays a major role in driving the industry's growth through its development of oil and gas resources as well as the creation of opportunities for local companies to build up capacity and capability across the value chain. PETRONAS is made up of two units: PETRONAS' Petroleum Management Unit regulates upstream activities, while PETRONAS' Subsidiary PETRONAS Carigali participates in production sharing contracts with other PSC contractors made majorly of Huge Multinational Corporations. The Malaysian government aims to increase aggregate production capacity of 5 percent per year up to 2020 to meet domestic demand growth and to sustain crude oil and LNG export markets [8].

Table 2: Production of Oil in Malaysia: 1980-2011

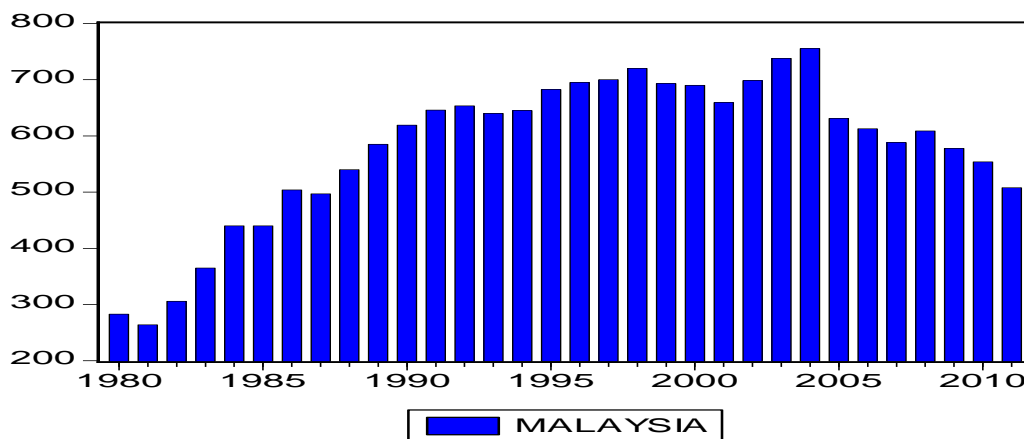
Year	Production	% Change
1980	283	NA
1981	264	-6.71
1982	306	15.91
1983	365	19.28
1984	440	20.55
1985	440	0.00
1986	504	14.55
1987	497	-1.39
1988	540	8.65
1989	585	8.33
1990	619	5.81
1991	646	4.36
1992	653.39	1.14
1993	640	-2.05
1994	644.99	0.78
1995	682.49	5.82
1996	695.03	1.84
1997	700	0.72
1998	720	2.86
1999	693	-3.75
2000	690.03	-0.43
2001	659.21	-4.47
2002	698.46	5.95
2003	737.86	5.64
2004	755.35	2.37
2005	631.07	-16.45
2006	612.6	-2.93
2007	588.22	-3.98
2008	608.8	3.50
2009	577.87	-5.08
2010	553.96	-4.14
2011	507.78	-8.34

Source:Authors' Compilation from [8]

Malaysian Oil production peaked in the mid 1990s approximately 600,000 barrels per day, as shown in Table 2. This was due to the normal maturation of the traditional shelf basins which means that most of the economically

attractive fields are likely to have been found and developed and new discoveries are more likely to be smaller and more demanding than those developed earlier. Total oil production in 2011 was an estimated 507,000 barrels per day, compared with 553,000 in 2010, of which about 83% was crude oil [8]. Without significant efforts being made in the upstream exploration, development and production via enhanced oil recovery, innovative approaches to the development of small fields, or through intensification exploration activities to achieve a faster pace of oil and gas discoveries, oil and gas production in Malaysia is expected to decline by 1 to 2 percent per year on average in the coming decades [6] as shown in the diagram below.

Figure 1: Trend Analysis of Malaysian Production



Source: Authors' Compilation from [8]

### 2.1.2 Malaysian Petroleum Fiscal System

Malaysia carries out its exploration, development and production activities through its National Oil Company, PETRONAS through Production Sharing Contracts (PSC) governed by the Malaysian Petroleum Act of 1967 and Petroleum Income Tax Amendment Act of 1976. Of the 615,100 square meters of land available for petroleum exploration 218,678 square metres which makes up 36% of the total acreages are currently covered by PSCs. Exploration and exploitation activities based on the PSCs have led to the discovery of 163 oil fields and 216 gas fields [6].

In 1997, a new PSC based on the “revenue over cost” concept was introduced to encourage additional investment in Malaysia’s upstream sector. The RC/PSC as tagged allows contractors to accelerate their cost recovery if the contractors achieved certain cost targets [9]. The major aim of the RC/PSC is to fulfil the terms of an ideal fiscal regime that give maximum revenue to government while still encouraging investment by allowing the PSC contractors a higher share of production when the contractor’s profitability falls and increase PETRONAS’s share of production when profitability is high. This is measured by an “R/C index” which is the ratio of contractor’s cumulative revenue over contractor’s cumulative costs. Details of the Malaysian fiscal

terms are described in the following table:

Table 3: Overview of Malaysian Fiscal Regime

<b>Fiscal Term</b>	<b>Main Features</b>
Royalty	10%
Petroleum Income Tax	38%
Export duty (oil and condensate)	10%
Research levy	0.5% (not inclusive in cost oil or cost gas)
PETRONAS Carigali's Participation	20%
Exploration Period	5 years
Gas Holding Period	5 years
Development Period	4 years
Production Period	20 years

<b>R/C index</b>	<b>Total cost tranche (TCT)</b>	<b>Total Profit tranche (TCT)</b>
0.0 to 1.0	70%	20%
1.0 to 1.4	60%	30%
1.4 to 2.0	50%	40%
2.0 to 2.5	30%	60%
2.5 to 3.0	30%	60%
> 3.0	30%	60%

**Below threshold volume (THV)\***

<b>R/C index</b>	<b>Contractors share of unused TCT</b>	<b>Contractors share of TPT</b>
0.0 to 1.0	-	80%
1.0 to 1.4	80%	70%
1.4 to 2.0	70%	60%
2.0 to 2.5	60%	50%
2.5 to 3.0	50%	40%
> 3.0	40%	30%

**Below threshold volume (THV)\***



<b>R/C index</b>	<b>Contractors share of unused</b>	<b>Contractors share of</b>
	<b>TCT</b>	<b>TPT</b>
0.0 to 1.0	-	40%
1.0 to 1.4	40%	30%
1.4 to 2.0	40%	30%
2.0 to 2.5	40%	30%
2.5 to 3.0	40%	30%
> 3.0	20%	10%

Source: Adapted from [8]: Putrohari et al, 2007

## **2.2 Nigeria**

### **2.2.1 Overview and Oil and Gas Industry**

Besides being the most populous black nation with an estimated population 158 million people and a land mass spanning; Nigeria is the largest producer of crude petroleum in Africa and as at 2010 the 10<sup>th</sup> largest producer in the world with an estimated production rate of 2,458,000 barrels per day [5]. The Oil and Gas Industry is significant to the nation's economy as it constitutes over 90% of Nigeria's foreign exchange earnings and 83% of its Gross Domestic Product [3].

History records that exploration for oil and gas began in 1908 in Lagos and Okitipupa coastal area in Western Nigeria by the Nigerian Bitumen Company owned by a German Consortium; between 1905 and 1956, various exploration activities were carried out in the various parts of the country. The first discovery of the crude petroleum was with the discovery of oil in Oliobiri in the then Rivers states, now Bayelsa State by Shell D'Arcy. The exploration of oil and gas is concentrated in Niger Delta region which constitutes 6 states out of the 36 states of the federation where both indigenous and multinational companies are engaged in the exploration and exploitation of oil [10].

The Nigerian oil and gas industry constitutes upstream, downstream and service sectors. The upstream sector comprises mining, exploration and production; the downstream is mainly involved in refining of crude oil into usable products through distillation, conversion and other special treatments to derive oil and gas products as well as distribution of products; finally the service sector provides technical and consultancy service to aid the upstream sector in drilling, exploration and production activities [3]. The major players in the Nigerian oil and gas industry are the Nigerian Government whose main focus is in the upstream sector and whose activities are mainly controlled and coordinated mainly by the Nigerian National Petroleum Corporation (NNPC) with other attendants ministries: the department of petroleum resources (DPR) (regulatory agency for oil and gas

activities); The Ministry of Energy (MOE); The Federal Ministry of Environment (FME) and the Federal Inland Revenue Service (FIRS) and the Niger Delta Development Commission (NNDC); the multinational companies (IOCs) and some indigenous companies found mainly in the service and downstream sectors [3].

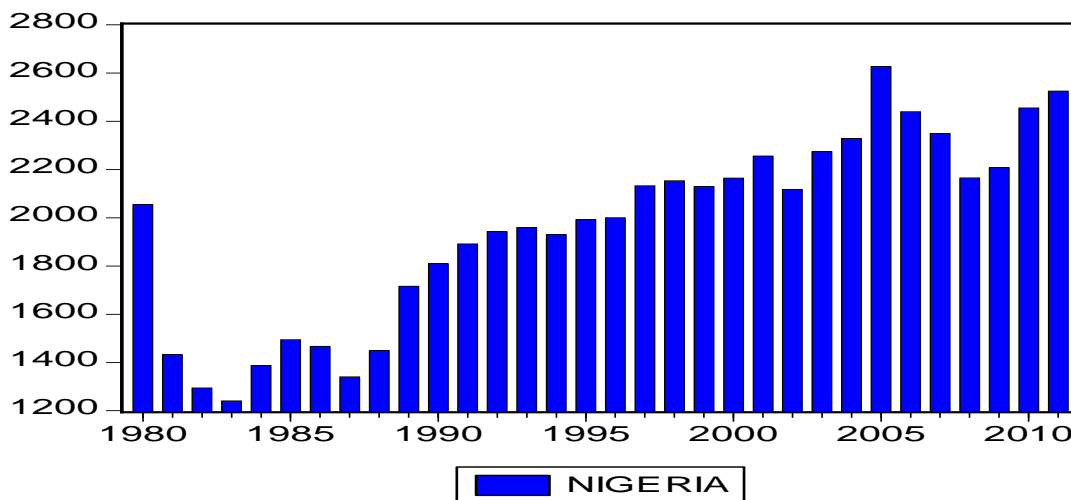
Table 4: Production of Oil in Nigeria: 1980-2011

Year	Production	% Change
1980	2,055.00	NA
1981	1,433.00	-30.27
1982	1,295.00	-9.63
1983	1,241.00	-4.17
1984	1,388.00	11.85
1985	1,495.00	7.71
1986	1,467.00	-1.87
1987	1,341.00	-8.59
1988	1,450.00	8.13
1989	1,716.00	18.34
1990	1,810.00	5.48
1991	1,891.80	4.52
1992	1,943.00	2.71
1993	1,960.00	0.87
1994	1,930.90	-1.48
1995	1,992.75	3.20
1996	2,000.53	0.39
1997	2,132.45	6.59
1998	2,153.46	0.99
1999	2,129.86	-1.10
2000	2,165.00	1.65
2001	2,256.16	4.21
2002	2,117.86	-6.13
2003	2,275.00	7.42
2004	2,328.96	2.37
2005	2,627.44	12.82
2006	2,439.86	-7.14
2007	2,349.64	-3.70
2008	2,165.44	-7.84
2009	2,208.31	1.98
2010	2,455.26	11.18
2011	2,525.29	2.85

Source:Authors' Compilation from [8]

In 2011, Nigeria produced about 2.53 million barrel per day (bbl/d) of total liquids, well below its production capacity of 3million barrels due to production disruptions that have compromised portions if the country’s oil for years. However, due to the federal government amnesty programmes Oil productions have increased as depicted in Figure 2 below.

Figure 2: Trend Analysis of Nigerian Production



Source: Authors’ Compilation from [8]

### 2.2.2 Industry Fiscal System

There are two main types of fiscal regimes existing in Nigeria today. Concessionary arrangements according to [11] dominated the Nigerian oil industry. Thus, Nigeria fiscal regime consists of Joint-Venture Contracts, production Sharing Contracts and Service contracts derived from the Petroleum Profits Tax Act of 1959, cap 354 laws of the federation of Nigeria (LFN) 1990; although there have been changes made of the various regimes throughout the years. This arrangement saw the government granted a pure 80 year concession to Shell D’Arcy (later Shell BP) in the 1930s although there was a tweak of this concession when it pertained to Agip in 1962 as it involved government’s equity participation in the company upon the discovery of oil.

However from 1970s following the nationalization policy OPEC and the establishment of Nigerian National Oil Corporation (NNOC) in 1972 later revised as Nigerian National Petroleum Corporation (NNPC), International Oil Corporations (IOCs) operating in Nigeria did so under a Joint Operating Agreement where government acquired participating interest in the IOCs’ operation in the country, usually 60%; this stipulates that the government contributes its share of funds usually called ‘calls’ to the general operations to meet high capital costs. The JOA became the dominant arrangement in the country’s petroleum system since it was established up until the early 20th century when Production Sharing contract was introduced as the government could not meet up with its calls due to “pressured on its financial resources from other competing areas of the economy” [11].

The PSCs covers the deep offshore areas and the inland basin with the deep offshore and inland basin production sharing contracts decree no. 9 of 1999 providing the principal framework for the use of PSCs in the country. The government under this arrangement do not have any funding obligations as the oil companies are responsible for upstream oil activities.

Table 5: Key Features of Fiscal Regime for Nigeria

<b>Fiscal Indicator</b>	<b>Fiscal Agreement</b>
Bonuses	Signature Bonuses:  Offshore  Up to 200ms \$10m  Up to 500ms \$20m  Up to 800ms \$25m  Up to 1000ms and beyond \$20m  Production Bonuses:  At 500mm bbls 0.2% of price; at 100mm bbls 0.1% of price
Royalties	Water depth dependent  <100ms: 18.5%  Up to 200ms: 16.67%  Up to 500ms: 12%  Up to 800ms: 8%  Up to 1000ms: 4%  Deep Offshore: 0%
State Participation (the maximum equity share the state can take)	Variable
Cost Of Recovery	Current Expensing Of Exploration And/Or Development Costs With Provision For Tax Credits Duty Exemption For Imports Of Equipment And

	Capital Goods
Tax Allowance	50% Credit In Capex For Pre-1998 Contracts
	50% Allowance On Capex For Post-1998 Contracts
Income Tax	Petroleum Profit Tax Of 50%, 85%
Profit Oil	Profit Oil Split To Government
Additional oil entitlement	20% at 350mm bbls
	35% at 750mm bbls
	45% at 1000mm bbls
	50% at 1500mm bbls
	60% at 2000mm bbls
	Over 2000mm bbls (Negoatiable)
Average Government Take	64%-70%

Source: Culled from [11]

The Nigerian PSC models features a range of royalties, bonuses and taxes. Under the PSC, a non-refundable signature bonus is payable on the oil prospecting license. The oil companies, fund the operations from exploration to production and the profits are shared as agreed under a memorandum of understanding after deducting companies' expenses.

Table 5 shows that in Nigeria signature and production bonuses are water depth dependent which also applies to royalties. On the issue of participation Nigeria has participation varies widely between agreements; the income tax rate for Nigeria varies between 50% and 85%. For PSC before 2005 profit oil share in Nigeria is based on cumulative production with government share ranging from a minimum 20% to 60%. After 2005 Nigeria's oil share was based on Rate of Return (ROR). Government take for Nigeria is one of the heist in SSA with a take of 64-70%.

## 2.3 *Indonesia*

### 2.3.1 *Overview and Oil and Gas Industry*

Republic of Indonesia is a country in Southeast Asia and Oceania [5]. The country shares land borders with neighbouring countries of Papua New Guinea, East Timor and Malaysia. The Indonesian economy is the 16th largest in the world by nominal gross Domestic Product. Indonesia production and exploration activities is mainly carries out in the basins of western Indonesia basically in offshore and onshore of two (2) states: Central

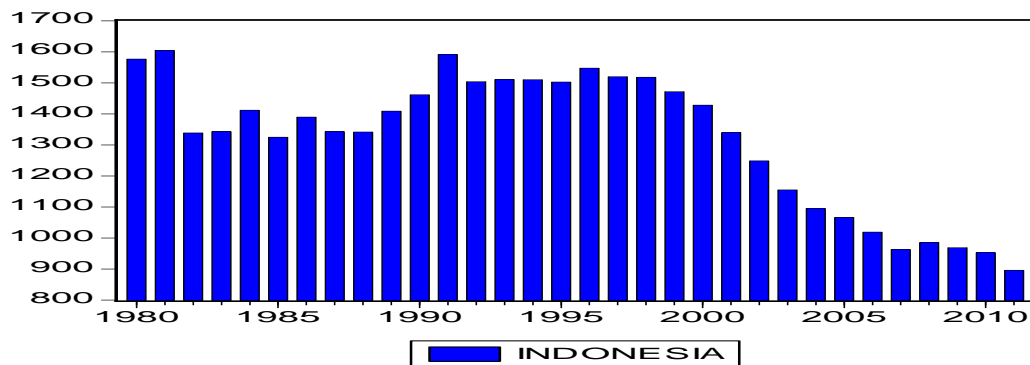
Sumatra and East Kalimantan. Indonesia holds proven oil reserves of 4.2 barrels and ranks 21st among the world's oil producers.

Year	Production	% Change
1980	1,577.00	NA
1981	1,605.00	1.78
1982	1,339.00	-16.57
1983	1,343.00	0.30
1984	1,412.00	5.14
1985	1,325.00	-6.16
1986	1,390.00	4.91
1987	1,343.00	-3.38
1988	1,342.00	-0.07
1989	1,409.00	4.99
1990	1,462.00	3.76
1991	1,592.00	8.89
1992	1,504.00	-5.53
1993	1,511.38	0.49
1994	1,510.20	-0.08
1995	1,502.69	-0.50
1996	1,547.49	2.98
1997	1,520.00	-1.78
1998	1,518.36	-0.11
1999	1,472.00	-3.05
2000	1,428.38	-2.96
2001	1,340.00	-6.19
2002	1,249.03	-6.79
2003	1,155.37	-7.50
2004	1,095.64	-5.17
2005	1,066.75	-2.64
2006	1,019.22	-4.46
2007	963.21	-5.50
2008	986.05	2.37
2009	969.08	-1.72
2010	953.15	-1.64
2011	896.21	-5.97

Table 6: Production of Oil in Indonesia: 1980-2011

Source: Authors' Compilation from [8]

Figure 3: Trend Analysis of Indonesian Production



Source: Authors' Compilation from [8]

However, in the last decades declining oil production basically as a result of natural maturation and slower reserve replacement and increased consumption resulted in the country becoming a net importer in late 2004. This single factor, along with high price of oil between 2004 and 2008, led the government to sustainably scale back the domestic fuel subsidy in 2008 and decide to withdraw temporarily from the OPEC. During 2010, Indonesia crude oil production was 0.945 million barrels per day, a drop of 33 percent since 2000. As the only Asian member of OPEC since 1962, the government country has indicated it will continue with OPEC only if it could increase its oil reserve and become a net exporter again.

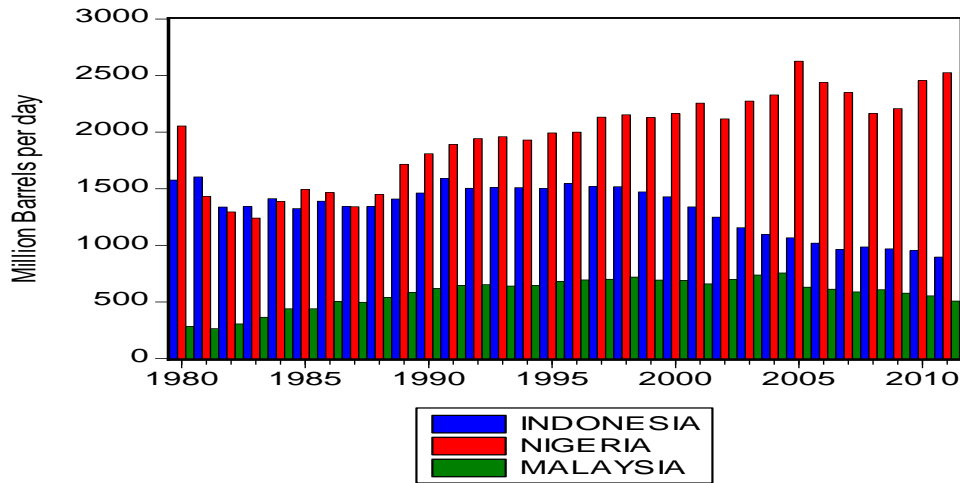
### 2.3.2 Petroleum Fiscal Systems

Indonesia was the first country to create and adopt Production Sharing contract for its oil and gas exploration since 1970s; although there have been revisions but the PSCs still dominate many of the features of its fiscal systems. In 2006, the government of Indonesian introduced the Indonesian PSC 2006 which is governed by the 1960 Regulation on the Mining of Mineral Oil and Gas which includes 1989 and 1992 incentives [9].

In this system that state oil corporation PERTAMINA can elect to repay the contractor by cash or from 50% of its production share with a 50% uplift applied to carried cost. Signature bonuses normally differ from one contractor to another subjected to negotiation. The first Tranche Petroleum (FTP) act as a royalty and BPMIGAS is entitled to 10% of its gross production. Contractor after tax equity split is 35% for oil and 40% goes to gas. 100% of production available after FTP is used for cost recovery. Bonuses are not cost recoverable [9]. However, operating costs and intangibles are expensed. Based production remaining after FTP and cost recovery, profit is shared between the government and contractor by the Before Tax Equity split for each product. The national oil company has an obligation to sell the oil into domestic market with the price below the market. This is known as Domestic Market Obligation (DMO). Obligation starts 5 years from production start of each field. Income tax is calculated based on the revenue from the contractor share of FTP, the cost recovery and the contractor profit oil. Operating costs, capital expenditures and bonuses are deductible from taxable income. The effective tax rate is 44% and losses are carried forward indefinitely [9].

### 3. Comparative Analysis of Upstream Petroleum Fiscal Systems of Nigeria, Indonesia and Malaysia

Figure 4: Comparative Analysis of Malaysian, Nigerian and Indonesian Production



Source: Authors' Compilation from [8]

A look at the figure 4 above shows that in the past three years Nigeria's oil production has declined consistently. Production in Indonesia has been relatively constant while Malaysia's production has falling drastically possibly reflecting the maturity of the basins where production occurs.

#### 3.1 Fiscal Systems Comparisons

Table 7: Fiscal Regimes of three Countries

Type	Nigeria	Malaysia	Indonesia
<b>Fiscal Arrangement</b>	PSC	PSC	PSC
<b>Royalty</b>	20% Onshore	10%	(85/15 Split) 20% FTP
	16.7% Deep		
<b>Cost Recovery</b>	100%	70%	80% (Under Review)
<b>Limit</b>			
<b>State Share Of Profit Petroleum</b>	20-60% (Avg. 50%)	Avg. 60% (Negotiable)	Avg. 65% (Negotiable)
<b>Petroleum Tax Rate</b>	50%	38%	40% (Combined C&D Rate)

Source: [9]; Authors' Compilation



#### 4. Summary, Implications and Conclusion

The aim of this paper is to compare fiscal regimes and how three oil exporting countries manage oil and gas resources through their fiscal regimes mechanisms. The three countries compared all adopt the Petroleum Sharing Contractual Fiscal system although with varying degrees of percentages across the classes of taxes. However, on the whole considering that a fiscal system is such that gives adequate compensation to host government while also encouraging investors to invest; it is recommended the two Asian countries should focus on investing in exploration of more reserves while Nigerian concentrates not only in amassing revenue but regime should focus on the part of the investors as well and building trust with oil communities.

The study concludes that every country no matter the fiscal regime adopted has a unique situation which may be addressed by the operators. The comparative analysis of fiscal system has frequently met with the difficulty of finding information on respective legislation. On the whole, regional countries have no transparency on their fiscal systems. This may remain a duty for further and ongoing studies. Further studies on the fluid type will also be relevant for the government and contractors in order to have a win-win solution.

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