

LGO JOURNAL OF EDUCATION RESEARCH

ISSN 2476-8332 Volume 5 Issue 1, June 2017.Page 242-251 http://www.palgojournals.org/PJER/Index.htm Corresponding Author's Email:isaacyakr.tutdel@yahoo.com

SOUTH SUDAN PETROLEUM FISCAL/FINANCIAL MODEL.

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Accepted 05 June, 2017

South Sudan is gifted with vast natural resources that could drastically improve the living standards of its small-size population if wisely managed. Petroleum sector was inherited based on contracts signed prior to the secession of South Sudan for the blocks located in the territory of the new state. The authorities in the new country made a commitment that, the fiscal/economic provisions in the production sharing contracts signed before its secession shall not be renegotiated but should be adopted for implementation. The economic provisions in the inherited existing contracts in the operational blocks are believed to be incompatible with the basic production sharing contracts around the world with regards to the lack of royalty and tax clauses. This paper analyses the fiscal/economic provisions of the current contracts and identifies the gaps that exist. Our conclusion is that the new financial model proposed in the study results in more economic returns to the government and people of South Sudan. For example, the inclusion of royalty and tax clauses in the new model increases the government share of revenue by \$4.14 per a barrell of oil based on a \$45/barrel average OPEC oil prices for 2015. Moreover, the adoption of the new financial model minimizes the risks involved in the investment of petroleum resources in South Sudan.

Key words: Financial model; Foreign oil companies; production sharing contracts, royalties and taxes; South Sudan.

1.INTRODUCTION.

The Republic of South Sudan is the youngest nation on earth. She got her independence from Sudan in July 2011. This young nation is blessed with vast natural resources that could immensely improve the living standards of its small-size population if wisely managed. The current petroleum sector operates on contracts inherited and signed prior to the secession of the State in 2011. The contracts were signed, covering oil blocks which are located in Sudan and the new Republic. However, the authorities in the new State made a commitment that the fiscal/economic provisions in the production sharing contracts signed prior to the creation of the new Republic should not be renegotiated but should be adopted for implementation within its territorial bounderies.

Not withstanding, the economic provisions in the inherited existing contracts in the operational blocks are believed to be incompatible with the basic provision of production sharing contracts around the world with regards to the exclusion of royalty and tax clauses. We believe that royalties and taxes are two key components of any sustainable and viable production sharing contracts and that excluding them from the petroleum sector will not contribute to economic growth in South Sudan. Therefore, in this paper, we analyze the provisions of the current petroleum production sharing contracts used by oil companies in South Sudan and based on the short comings of the financial models embedded in the existing contracts, we propose a new financial model that will benefit the government and people of South Sudan. The rest of the paper is organized as follows. In Section 2 we run the financial analysis of the inherited contracts and based on our findings, we propose a new financial model in Section 3 for future contracts. In this Section, the analysis involve simulations to project the expected revenues accrued from the oil proceeds to both the Government and foreign oil companies (FOCs). Section 4 discusses the major findings from the proposed models and their implications. Finally, conclusions and policy recommendation are provided in Section 5.

2.THE EXISTING FISCAL/FINANCIAL MODEL OF PETROLEUM CONTRACTS IN SOUTH SUDAN.

The existing petroleum contracts in South Sudan were signed in the 1990s and early 2000s, before the independence of the new State. The major fiscal/financial provisions in those contracts comprise of bonuses and profit oil sharing. There

are no royalty and tax clauses embodied at the time when they were negotiated. Moreover, those contracts adopted various fiscal provisionswhose arrangements include bonuses, cost oil and profit oil ratios. Bonuses are not fixed but negotiable during the contract negotiation. Cost oil is fixed between 45% or 50% of gross production. Profit oil is on sliding scale based on production figures.

This section runs the financial analysis of the inherited contracts in South Sudan. This analysis involves simulations to project the expected revenues accruing from the oil proceeds to both the Government and FOCs using the Organisation of Petroleum Exporting Countries (OPEC) crude oil average price of \$45.00 in 2015(Organization of the Petroleum Exporting Countries (OPEC,2015). This method is applied in both the existing and proposed models for uniformity and comparative purposes to extract a possible Net Present Value (NPV) and Internal Rate of Return (IRR). Table 2.1 below contains information on the current contracts commercial terms. The primary elements of any Production Sharing Contract (PSCs) around the world include the bonus, royalty, cost recovery limit, profit oil split and taxes at most. This is not the case in South Sudan regarding the commercial terms of the current contracts as illustrated in Table 2.1 below.

Table 2. 1. South Sudan Existing PSC commercial terms				
	Item	Percent		
	Signature bonus	\$5mm		
	Royalty rate	0%		
	Cost recovery limit	50%		
	Government profit oil	70%		
	Income Tax	0%		
	Depreciation rate	4 year straight line (20%/year)		

3.SOUTH SUDAN PRODUCTION SHARING FLOW DIAGRAMS.

The figure below demonstrates the flow diagram of South Sudan Existing PSCs. An average full-cycle revenues and costs is used for simple illustration purposes only. One barrel of crude oil is followed through the calculation with (OPEC) crude oil average price of \$45/bbl of the year 2015 as mentioned earlier.

Bonus.

The value for signature bonus stands at \$1.5million and is payable by the contractor right after the signing of the contract. There are other bonuses too in the form of first commercial discovery bonus and production bonus. Henceforth, all the bonuses is lump to \$5 million. However, the signature bonus is the subject matter in this calculation because it is associated with the investment decision-making. Not withstanding, this is ignored in the case of South Sudan with regards to the existing contracts where massive production is already taking place. In general, under a reimbursable contract, if a bonus is given for reducing costs it will be based on a percentage of the difference in realised cost from a predetermined agreed base value.

Royalty.

The existing South Sudan PSCs have no royalty payment obligation. Government assumed the payment of royalty from its share of petroleum on behalf of the contractor. "the government shall own and be entitled, during the production period, including renewal, to any royalty payable under the laws of Sudan on the total quantity of petroleum produced and saved from the Contract Area and not used in operations hereunder. Said royalty shall be borne or paid out of the government share of Petroleum and shall not be the obligation of contractor"

Such requirement was not embodied into the current functioning contracts. Contrary to the existing contracts provisions, South Sudan Petroleum Act, 2012 under section 69 South Sudan Petroleum Act, 2012 obliges the contractor to pay a royalty to the state. However, such provision may be operationalised in the future ventures because the stabilisation clauses in the existing contracts may prohibit the state to enforce the new Law, which shall be termed as a change of law. Moreover, enforcement of the new Law retrospectively, especially in the oil sector is not a new idea. A handful of governments has enacted a new Petroleum Acts, and the provisions of those Acts were enforced on the ventures which were signed before the enactment of the Act. Brazil in the mid-1990s enacted a petroleum law which introduced significant changes in the Brazilian oil industry. According to the new law, all concessionaires working on the production of oil and natural gas, both onshore and offshore, must pay royalties to the government(Fernando Antonio Slaibe Postali,2009). The fact that there are no royalties and taxes in the existing petroleum contracts in South Sudan is a gray area to enforce the new law as part of reform in the oil sector. The major challenge in introducing the royalties clause in the existing contracts will be how to determine the figure that is aggressive to the FOCs. Turkey had introduced a progressive sliding scale when it introduced the petroleum law in 2011. This Act introduces two significant economic changes to increase domestic petroleum production, further national petroleum supply, attract investors and harmonised its laws with those of European Community (Levent Aydin,2012).

So	outh sudan Proposed psc flow Diagram 'Full cycle' Gross revenues \$45	
Contractor Share		Government share
	Royalty 0%	>\$0.00
	\$45	_
\$22.5←	cost recovery 50% limit	
	\$22.5 profit	_
\$6.75 ←	profit oil split 30%/70%	>\$15.75
\$0.00←	tax rate 0%	>\$0.00
\$29.25	Division of gross revenues	\$15.75
\$6.75	Division of cash flow	\$15.75
30%	Take	70%
\$6.75/(\$45-22.5)		\$18/(\$45-22.5)
65%	Entitlement	35%
(\$22.5+6.75)/\$45		((15.75)/45

Figure 2.1: Existing SouthSudan PSC flow diagram.

(1) progressive sliding royalty relief on oil and gas production lease and (2) 50% of the royalty shall be transferred to province where the production lease existsibid. In the light of the above examples, South Sudan can still introduce reasonable fiscal changes in the existing contracts to meet the international standards in the oil industry practices.

Cost Recovery.

The contractor in South Sudan is allowed to recover all costs and expense in respect of petroleum operations subject to the accounting procedure and auditing provisions in the contract. The contractor is therefore entitled to fifty (50) percent of gross production on average, per financial year of all crude oil and condensate produced and saved from the contract area to recover the costs and expenses. Such costs and expenses of petroleum operations are recovered from the cost oil in the following manner:

- 1. All operating expenses after commercial production shall be recoverable in the financial year in which such costs and expenses are incurred.
- 2. Exploration expenditures, including those accumulated prior to commercial production, shall be recoverable at the rate of twenty-percent (20%) per financial year.
- 3. Development expenditures, including those accumulated prior to commercial production, shall be recoverable at the rate of twenty-percent (20%) per financial year.

To the extent that, in a financial year, costs expenses or expenditures recoverable as per paragraphs (1), (2) and (3)

above exceed the value of all cost oil produced in such financial year, the excess shall be carried forward for recovery in the next succeeding financial year or years until fully recovered. If in any financial year, costs, expenses or expenditures recoverable as per paragraphs (1), (2) and (3) above shall be less than the value of all cost oil, the remaining balance of such cost oil shall be divided between and taken separately by the government and the contractor dividable 80% and 20% in favour of the government. Cost recovery factor in the Republic of South Sudan has a limit. The fifty (50%) limit is adopted in this example on average basis. It is also noteworthy that some production sharing contracts allow for unlimited carry forward. From a mechanical point of view, the C/R limit is the only true distinction between R/T systems and PSCs(Daniel Johnston,2003).

Profit oil split.

Profit oil is virtually defined as the revenues remaining after deducting royalty and cost oil. It is similar to taxable income under the concessionary system. In the case of South Sudan, it stands as remaining revenues after cost oil because no obligation on royalty payment. After the deduction of cost oil, the remainder of the daily production of crude oil from the contract area of all petroleum produced shall be taken and disposed of separately by the government and the contractor. The division of profit oil under South Sudan petroleum contracts is on sliding-scale at 70%-30% minimum and 80%-20% maximum in favour of the government. Oil revenues are necessary for oil-dependent countries(Zhuo Feng, Shui-Bo Zhang and Ying Gao, 2014).

The division of profit oil has helped South Sudan to generate revenues to support its operational budget which is highly dependent on oil proceeds.

Income Tax

Foreign oil companies in South Sudan are not obligated to pay taxes from the share of their profit oil under the existing contracts. Tax liability is taken care of by the state from its share of production. "Government shall assume, pay and discharge, on behalf of Contractor, Contractor's Sudan income taxes as well as any other taxes that might be imposed now or in the future on Contractor's operations out of the sums received by the Government's share of Crude oil and Gas"note 4, pp 42. However, the South Sudan Petroleum Act of 2012 obliges the foreign oil companies (FOCs) to pay taxes to the state from their profit oil. Section 70Note 3, pp 66 of the new law states; 'a person conducting petroleum activities in the South Sudan shall pay taxes and customs duties in accordance with the applicable law'. The South Sudan Taxation Act of 2009 put the business profit tax for large businesses at the rate of 20%. This provision is moreover believed not to be effective with the current operational petroleum contracts, but may be applied with new ventures in other frontiers. No additional profits tax under the Petroleum Act 2012 nor the taxation Act of 2009 that obligate the FOCs under the existing contracts.

The lack of explicit provisions in the current South Sudanese petroleum contracts on royalty and taxes reduces the government earnings, and this is absolutely unfornate. However, the circumstances in which those contracts were awarded dictate the logical answer. The country was at war with itself, and the government was in desperate need of cash to finance the security unit. Henceforth, critical analysis on financial/fiscal terms of those contracts were given less attention since the overall objective of the government was to generate revenues to finance the war. With improvement in the security sector, critical analysis on financial/fiscal provisions is required to align those financial terms with the rest of other terms in the world.

Nonetheless, caution is required to garner the host government intention in attracting credible investors in the oil business by providing a balance and attractive fiscal terms. The goal of a fiscal system from a government's point of view is to attract investment and capture the maximum economic rent given the geologic endowment of their petroleum acreage (Andon J. Blake and Mark C. Roberts,2006). The attractiveness of the fiscal terms has a fundamental effect on a project's feasibility and economic benefits of international oil companies, and it is an important indicator for judging the country's investment environment of oil industry(Luo Dongkun and Yan Na,2010). Adjustment of South Sudan taxation regime can aid the government to maximise revenue from the petroleum investments. Russian taxation law has seen a series of amendments to introduce efficiency in the taxation policy. Russian authorities have been forced to introduce an increasing variety of tax breaks and custom-made adjustment to incentivize investments in the petroleum industry (Daniel Fjaertoft and Lars Petter,2015). Therefore, Sudan Sudan can also amend its petroleum laws to comform to international best practices.

State participation

The policy of state participation in the petroleum investment in South Sudan is carried out by the state-own oil company (Nile Petroleum Corporation, NilePet). South Sudan national oil company has a participating interest of 5% -8% in the three oil producing blocks and 10% in all the exploratory blocks on a carried basis until when the production commences. NilePet enjoys a preferential treatment and serves as the prime contractor in all the blocks within the

Republic and with marginal participation. The least state participation in South Sudan can trigger a paradigm shift should the country develop a strong political institutional structures with robust accountability and transparency in the oil sector. The existing low participating interests deprive the Counry from maximising the needed revenues from the oil investment and this can trigger the nationalisation of the FOCs assets in the long run. Factors such as high oil prices, revenue maximization and nationalism influence the state nationalisation of foreign oil companies. In an international context in which the high demand of the so-called emerging economies, particularly China and India, had pushed up the prices of energy and other raw materials in the past, it was tempting to renationalise natural resources(Joaquin Melgarejo, M Inmaculada Lopez Ortiz and Borja Montano Sanz,2013). As of 2012, between 73 and 95 percent of global oil reserves are controlled by national oil companies (NOCs)(Paasha Mahdavi,2014). The majority of these NOCs were established through nationalisation in the 1970s, though several states opted for NOCs in the 1930s and 1990sibid. South Sudan can feel motivated by examples taken by other oil producing nations to nationalise the oil sector on the pretext that, it is getting less revenue from its natural endowment and, henceforth can capitalise on the imbalances between the national interests and the windfall profits generated from the oil in favour of FOCs.

4.THE PROPOSED FISCAL/FINANCIAL MODEL OF PETROLEUM CONTRACTS IN SOUTH SUDAN

After reviewing and discussing the existing petroleum fiscal/financial model of South Sudan in Section 2, in Section 3 we propose a new model for the forthcoming ventures in the oil industry in South Sudan. In this model, the signature and other bonuses remain the same as in the previous model. However, we introduce royalty and tax clauses. The royalty rate is measured at 10% of the gross production which represents the initial income to the government once the production starts. Cost recovery limit is maintained at 50% of net production less royalty, and the profit oil split stands at 70%-30% in favour of the government. Income tax is at 20% of the contractor profit oil and, there shall be no other additional taxes levied on the contractor to guarantee and attract a stable foreign investments in the oil industry. Table 3.2 contains data on the contracts commercial terms arrangement for the proposed South Sudan fiscal/financial model.

Table 3.2: South Sudan ProposedPSC Commercial Terms

Item	Percent
Signature bonus	\$5mm
Royalty rate	10%
Cost recovery limit	50%
Government profit oil	70%
Income Tax	20%
Depreciation rate	4 year straight line (20%/year)

South Sudan Proposed Production sharing Contract flow diagrams.

Figure 3.1 below demonstrates the flow diagram of the proposed South Sudan PSCs model. The major features of the model are (1) signature bonuses (2) Royalty (3) Cost recovery limit (4) government profit oil and (5) income tax. An average full-cycle revenues and costs is used for simple illustration purposes only. One barrel of crude oil is followed through the calculation with an assumed price of \$45/bbl based on OPEC crude oil average price of 2015.

5. DISCUSSIONS

Bonus: The Proposed PSCs model maintains the \$5MMas bonuses inclusive of commercial discovery and production bonuses as well. Signature bonuses should be paid by the contractor right after the conclusion of the contract depending on the agreed value. The payment of other bonuses is associated with the commercial viability of the contract. The signature bonus is the subject matter in this calculation because it is associated with the investment decision-making because of the uncertainty of the contract, especially the exploration stages whereby the probability of commercial discovery is not uncertain

Royalty:The proposed model PSC suggested for royalty at a rate of 10%, payable to the government from the gross production. This requirement must be implemented in line with the provisions of Petroleum Act, 2012. The state should adjust the non-payment of royalty clause that exists in the old model. This practice ought to stop as advocated for by the Petroleum Act, 2012. Article 69 of South Sudan Petroleum Act 2012 states: 'A contractor shall pay such bonuses or royalties as may be prescribed in regulations or as agreed in a petroleum agreementNote 3 pp 66'. This legislative provision has to be enforced and operationalised in the future contracts.

	Diagram 'Full cycle' Gross revenues \$45	
Contractor Share		Government share
	Royalty 10%	>\$4.5
	\$40.5	
\$20.25←	cost recovery 50% limit	
	\$20.25 profit oil	
\$6.075←	profit oil split 30%/70%	>\$14.175
\$1.215 ← \$4.86	tax rate 20%	>\$1.215
\$25.11	Division of gross revenues	\$19.89
\$4.86	Division of cash flow	\$19.89
20%	Take	80%
\$4.86/(\$45-20.25)		\$19.89/(\$45-20.25)
59%	Entitlement	41%
(\$20.25+6.075)/\$45		(19.89)/45

Figure 3.1: Proposed South

Sudan PSC flow diagram.

Cost Recovery: The provisions for cost recovery limit should remain unchanged in the proposed model. The contractor in South Sudan is allowed to recover all costs and expense in respect of petroleum operations subject to the accounting procedure and auditing provisions in the contract. The contractor is therefore entitled to fifty (50) of gross production on average, per financial year of all crude oil and condensate produced and saved from the contract area to recover the costs and expenses. Such costs and expenses of petroleum operations are recovered from the cost oil in the following manner:

- 1. All operating expenses after commercial production shall be recoverable in the financial year in which such costs and expenses are incurred.
- 2. Exploration expenditures, including those accumulated prior to commercial production, shall be recoverable at the rate of twenty-percent (20%) per financial year.
- 3. Development expenditures, including those accumulated prior to commercial production, shall be recoverable at the rate of twenty-percent (20%) per financial year.

To the extent that, in a financial year, costs expenses or expenditures recoverable as per paragraphs (1), (2) and (3) above exceed the value of all cost oil produced in such financial year, the excess shall be carried forward for recovery in the next succeeding financial year or years until fully recovered. If in any financial year, costs, expenses or expenditures recoverable as per paragraphs (1), (2) and (3) above shall be less than the value of all cost oil, the remaining balance of such cost oil shall be divided between and taken separately by the government and the contractor dividable 80% and 20% in favour of the government. Cost recovery factor in the Republic of South Sudan has a limit. The fifty (50%) limit is adopted in this example on average basis. It is also noteworthy that some production sharing contracts allow for unlimited carry forward.

Profit oil split: In the case of South Sudan old oil model, profit oil stands as remaining revenues after cost oil because no obligation on royalty payment. After the deduction of cost oil, the remainder of the daily production of crude oil from the contract area of all petroleum are taken and disposed of separately by the government and the contractor. The division of profit oil under the South Sudan old petroleum contracts is on sliding-scale at 70%, 30% minimum and 80%, 20% maximum in favour of the government. In the new model, with the inclusion of royalties, the government share of oil revenue will be much improved as compared to the old model. Therefore, if revenues generated from oil can be well managed it will help the country to grow and diversify its economy Which is predominantly dependence on 98% of the oil revenues to support its national budget and improve the welfare of the population. The exploitation of natural resources in developing countries can support their economic growth and fund social welfare improvements (Luca Di Corato,2013) .In absent of the required technology, financial strength and adequate managerial capacity, South Sudan government can benefit from joint ventures in conjunction with the multinationals corporations.

Income Tax: Foreign oil companies in South Sudan are not obligated to pay taxes from the share of their profit oil under the existing contracts as demonstrated above. Tax liability is taken care of by the state from the state share of production. However, foreign oil companies are obliged to pay taxes under the new Petroleum Act 2012. Section 71 of South Sudan taxation Act, 2009, obliged the payment of business profit tax. The rate of business profit tax for large business is 20%. This provision is moreover believed not to be effective with the current operational petroleum Act 2012 nor under the taxation Act of 2009. The proposed model PSC of South Sudan accommodates the payment of taxes by the contractor at the rate of 20%. This proposal is in line with the enacted sectoral laws of the Republic. The proposal may represent a sense of relief to the government who may feel cheated or denied in capturing the maximum rent from its natural wealth.

State Participation: The state participation in the new model is suggested to be between 25%-30%. The previous state participation of 5%-7% is too marginal to generate the required resources to establish a state-own company. Such ratios should be discarded and replaced with the new ones. State participation, royalty payment and taxation are viewed as primary sources of income to the government in the oil sector. Norway has a successful history of state participation and taxation since the inception of the oil industry in that country. The Norwegian system of state participation and taxation is viewed primarily as a revenue collector, which means that state participation is regarded in much of the article as another tax(Diderik Lund,2014). The Norwegian system is well developed and internationally recommended but moreover undergone circumstantial changes in reaction to that country's endowments and practices.

Simulation:

The financial simulation runs in this paper is for both the existing and the proposed models. Royalty and Tax provisions are the determining factors that influence the simulations results. We first run the simulation of the old model to find out the Net present Value (NPV) and Internal Rate of Return (IRR) and results are summarised in Figures 4. 1 and 4.2 below. In the old contract system, where payments for royalty and taxes are omitted, the Net Present Value (NPV) and the Internal Rate of Returns are very high at the price of \$45 per a bareel of crude oil. The inflation and discount rates are determined at 3% and 10% respectively in the both models for simulation purposes. The NPV in the old contracts is 1,133.99 and and the IRR is 142%. as depicted in Figures 4.1 and 4.2. A detail data is presented in Appendix A.

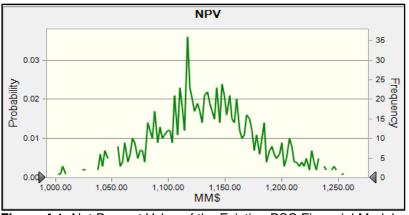


Figure 4.1: Net Present Value of the Existing PSC Financial Model

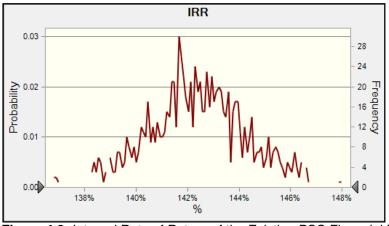


Figure 4.2: Internal Rate of Return of the Existing PSC Financial Model

Royalty and Tax provisions in the forthcoming contracts change the existing scenario and shall be used to examine the circulation amongst the government and contractor on net revenues resulting from the development of South Sudan oil reserves. The simulation in the new/proposedmodel considers the Net Present Value (NPV) and Internal Rate of Return (IRR) and results are summarised in Figures 4. 3 and 4.4 below. In the new contract system, with payments for royalty and taxes, the Net Present Value (NPV) and the Internal Rate of Returns are not too high at the price of \$45 per a bareel of crude oil. The inflation and discount rates are determined at 3% and 10% respectively in both models as mentioned above. The NPV in the proposed financial model is 413.83 and the IRR is 99% as depicted in Figures 4.3 and 4.4. A detail data is available in Appendix B.

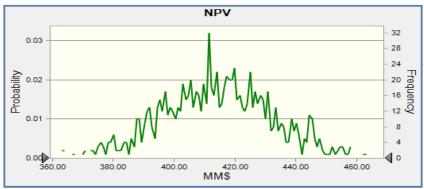


Figure 4.3: Net Present Value of the Proposed PSC Financial Model

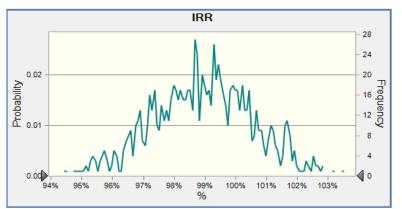


Figure 4.4: Internal Rate of Return of the Proposed PSC Financial Model

Matters which includes additional costs and other unforeseeable changes in the process of petroleum operations are worth considering. Developers typically bear a greater share of the consequences of variations in capital expenditures

than they do of changes in operating expenditures, prices, and exchange rates(Andre Plourde,2010). Mindful at the background is how excessive royalty and tax provisions can affect the distribution of net income and the distribution of revenues and expenditures risk associated with the petroleum activities, especially in a complex environment.

6.CONCLUSIONS AND RECOMMENDATIONS

Conclusions

In this paper, a new financial model for PSCs in the Republic of South Sudan has been proposed. The model incorperates royalties and taxes in the South Sudan petroleum production sharing contracts to improve revenues maximazation by the government from the petroleum sector. Such provisions are lacking in the current PSCs that govern the petroleum sector in South Sudan. However, the inception of the proposed model may be percieved as a deterrence to potential investors who may want to invest in the country. But, the introduction of rayolty and tax into existing fiscal system provides a future investment guarantee to foreign oil companies because it balances the state interest without compromising the FOCs interest. Resource tax and royalty reforms are indispensable for South Sudan to alleviate fears of nationalisation of foreign assets in the future.

For example, China introduced resources tax reform in 2010 to improve the taxation regimes in the country. China's resource tax reform, beginning with Xinjiang as a pilot area in June 2010, marked a new stage in the progression of China's resource tax system(Zengkai Zhang, Ju'e Guo, Dong Qian, Yong Xue and Luping Cai,2013). Using the experience of China and other countries, South Sudan must capture enough revenues from its natural resources to develop other income sectors to sustain the stream of income, though China domestic petroleum operations is not a better example with South Sudan industry. Specifically, South Sudan should transform the revenues accrued from the oil sector to develop other income generating sectors such agriculture and mining to sustain its budgetary obligation which depends on 98% of oil income currently. This will result in economic diversification and income substainability in the mist of falling oil prices.

In this study, it has ben observed that progressive relaxations in South Sudan petroleum fiscal regime has led to high profit to FOCs from the most recent past period of extraordinarily high oil prices unlike the most recent low oil prices of 2015. Therefore, with the current decrease in oil prices on international market, the new model will help the South Sudanese economy to gain some form of economic balance while it tries to diversify the economy.

Finally, the commercial terms of the corporate agreement signed between South Sudan and Sudan in 2012, in which South Sudan is obliged to pay Khartoum a fix amount of over \$24(Agreement between the government of the Republic of South Sudan and the Government of the Republic of the Sudan on oil and related economic matters. Addis Ababa, 27th September 2012). per barrel poses a major challenge to South Sudan as the government struggles to meet its obligation in the face of low global oil prices. This is one reason that supports the establishment of the new financial model. The likelihood to renegotiate the financial terms of this agreement is imminent when its intial period ends in March 2016. Therefore, future research on the petroleum sector in South Sudan will focus in this direction.

Recommendations.

In light of the above discussion, it is highly recommended that flexibility is paramount in applying the new financial model in South Sudan due to number of reasons as enumerated below:

- 1. The 10% royalty proposed in the new model should not be static with regards to all the discoveries. The figure must vary from one oil field to other depending on the quantity discovered in a particular field. Therefore, a sliding scale royalty rate between 5%-10% is more appriopriate in small and large discovery.
- 2. Tax provisions must as well be relaxed to avoid punitive loses to the investor especially at the start of production. We therefore suggest a tax holiday for the contractror for a period of seven (7) years from the start of commercial production as financial incentives to motivate the investors.
- 3. Crude Oil price volatility. The current oil price shocks is also an influncing factor for the government not to introduce a strigent terms that can affect the financial viability of oil operations. Low oil prices block investors from risking their capital at intial stage at a time where little is know on the stability of oil prices. Therefore, during a period of low oil prices, government should keep the tax rates as low as possible to enable contractors to recover their investment costs.
- 4. political risks. South Sudan political system is still fragile and at a transition from the gorrila mindset to mature political thinking. Such risk can scared away potential investors on strong guarantee of their assets. Therefore, creating an enabling political environment that attracts investors is highly recommended in South Sudan

ACROYNOMS

IRR	Internal Rate of Return
	internal flate of fletani

- NPV Net Present Value
- PSC Production Sharing Contract
- FOCs Foreign Oil Companies
- MM Million

OPEC Organization of Petroleum Exporting Countries

REFERENCES

Agreement between the government of the Republic of South Sudan and the Government of the Republic of the Sudan on oil and related economic matters. Addis Ababa, 27th September 2012.

Alexander G. Kemp and Linda Stephen(1999)., Risk: reward sharing contracts in the oil industry: the effects of bonus:penalty schemes.

Andon J. Blake and Mark C. Roberts, (2006) Comparing petroleum fiscal regimes under oil prices uncertainty.

Andre Plourde, (2010). On properties of royalty and tax regimes in Alberta's oil sands.

Daniel Fjaertoft and Lars Petter Lunden, (2015). Russian petroleum tax policy-Continous maneuvering in rocky waters.

Daniel Johnston, (2003). International Exploration Economics, Risk, and Contract Analysis.

Diderik Lund, (2014). State participation and taxation in Norwegian petroleum: Lessons for other?

Exploration and Production Sharing contract, Block 3 & 7, Signed in December 1999, Republic of Sudan.

Fernando Antonio Slaibe Postali, (2009). Petroleum royalties and regional development in Brazile: The economic growth of recipient towns.

Joaquin Melgarejo, M Inmaculada Lopez Ortiz and Borja Montano Sanz,(2013). From privatisation to nationalism: Repsol-YPF, 1999-2012.

Levent Aydin, (2012). The economic impact of petroleum royalty reform on Turkey's upstream oil and gas industry.

Luca Di Corato, (2013). Profit sharing under the threat of nationalization.

Luo Dongkun and Yan Na,(2010) Assessment of fiscal terms of international petroleum contracts.

Organization of the Petroleum Exporting Countries (OPEC,2015) Monthly Oil Market Report. (Development in Global Oil Inventories). Paasha Mahdavi, (2014). Why do leaders nationalise the oil industry? The politics of resource expropriation.

South Sudan Petroleum Act ,(2012).

Zengkai Zhang, Ju'e Guo, Dong Qian, Yong Xue and Luping Cai,(2013). Effects and mechanism of influence of China's resource tax reform: A regional perspective.

Zhuo Feng and Shui-Bo Zhang,(2014) Ying Gao, Oil investment and production: A comparison of production sharing contracts and buyback contracts.