Fiscal Regimes and Managing Oil Revenue for Economic Development – A Comparative Study of Legal Regimes in Ghana, Alberta and Norway

by

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ABSTRACT

Ghana's oil industry has real potential to transform the country. With the right conditions, Ghana's oil industry, like that of Alberta and Norway can help create jobs, strengthen the domestic private sector, fund public services, and contribute to infrastructural development, which could benefit both present and future generation. This thesis examines the current regulatory framework for managing oil revenue in Alberta, Norway and Ghana by assessing concepts in Alberta and Norway's regime that could be adopted in Ghana. Emphasis is placed on the tenure granting system and the regime for determining the government's share of oil revenue. It also examines the regulatory framework for the usage of petroleum revenue.

DEDICATION

This thesis is dedicated to my lovely wife, Alberta Owusuaa and my son, Richard Oppong Amoateng, who endured so I could excel.

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CHAPTER ONE: INTRODUCTION

1. Introduction

Ghana's emerging oil industry has real potential to transform the country for the better. With the right conditions, the oil industry can create jobs, strengthen the domestic private sector, fund public service improvements, and contribute to infrastructural development. The oil industry could also contribute to the inflow of foreign investment, export earnings, government revenue and national income. However, the sad experience of many African countries demonstrates that fulfilling this potential is neither assured nor automatic.[1] In Africa, the extraction of non-renewable natural resources, such as oil, has often led to political instability, revenue management challenges, environmental degradation, corruption and increased social tension.

This thesis argues that Ghana needs an improved legislative and regulatory framework in order to translate its newly found oil wealth into a blessing and, unlike the story in many other African countries, to ensure it does not become a curse.[2] Taking the current legislative and regulatory framework for managing oil

[1] See: VO Asekunowo & SA Olaiya, "Crude oil revenue and economic development in Nigeria (1974–2008)" (2012) 36 OPEC Energy Review 138–169; Emeka Duruigbo, "Managing Oil Revenues for Socio-Economic Development in Nigeria: The Case for Community-Based Trust Funds" (2004) 30 North Carolina Journal of International Law & Commercial Regulation 121. See generally, Charles McPherson, "Petroleum Revenue Management in Developing Countries" (2004) OGEL 2.

[2] The resource curse phenomenon implies that abundant mineral resources in some countries have become a 'curse' rather than a blessing, as the supposed wealth (revenue) generated from these resources does not translate into what could be regarded as a good standard of living, development, or generally healthy economy. In general, the resource curse theory has three interconnected dimensions – one is slower economic growth (the economic dimension), the second is violent civil conflict (the social dimension), and the third is an undemocratic or autocratic system of government (the political dimension). The scholarship on this phenomenon is extensive; see generally: Christa N Brunnschweiler & Erwin H Bulte, "Natural Resources and Violent Conflict: Resource Abundance, Dependence, and the Onset of Civil Wars" (2009) 61 Oxford Economic Papers 651; Christa N Brunnschweiler & Erwin H Bulte, "The Resource Curse Revisited and Revised: A Tale of Paradoxes and Red Herrings" (2008) 55 Journal of Environmental Economics & Management 248; Terry Lynn Karl, *The Paradox of Plenty: Oil Boom and*

revenue[3] in Ghana as the launch pad, this thesis will comparatively and critically explore the legislative and regulatory framework for managing oil revenue in Alberta and Norway – two of the leading and most widely recognised jurisdictions in this domain – with a view to assessing the extent to which Ghana can learn from, or be inspired by what they have done.[4]

A key focus of my investigation will be issues of public participation, discretion, transparency, and accountability.[5] In focusing on these points, the thesis will be placed within a broader discourse on governance, with good governance being the key to the effective and beneficial management of oil revenue. It is significant in this respect that the Preamble of the *Petroleum Revenue Management Act*, 2011 - one of the principal Ghanaian legislation relevant to this topic - declares that it is "an Act to provide the framework for the collection, allocation and management of petroleum revenue in a responsible,

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Petro-States (Berkeley, CA: University of California Press, 1997); Michael Ross, "The Natural Resource Curse: How Wealth Can Make You Poor" in Ian Bannon & Paul Collier eds, *Natural Resources and Violent Conflict: Options and Actions* (Washington, D.C.: The World Bank, 2003) 17; Michael L Ross, "The Political Economy of the Resource Curse" (1999) 51 World Politics 297.

[3] By managing oil revenue, I am referring both to the mechanisms through which financial returns accrue to the state as a result of oil exploration (e.g. through taxes) and the mechanisms for using or distributing this revenue within the state. For an excellent comparative work on the former, with a robust critique of the regimes which exist in some African countries, see: Evaristus Oshionebo, *Fiscal Regimes for Natural Resource Extraction: Implications for Africa's Development* in Francis Botchway ed, "*Natural Resource Investment and Africa's Development* (Edward Elgar Publishing, 2011) 200. See also: Open Society Institute of Southern Africa, et al, Breaking *the Curse: How Transparent Taxation and Fair Taxes can Turn Africa's Mineral Wealth into Development,* 2009.

[4] Ghana has a long history of mining hardrock minerals. Where appropriate in this thesis, a comparison of revenue collection and use or management in hardrock mining, and in oil revenue will be undertaken.

[5] Canada, Ghana and Norway are part of the Extractive Industries Transparency Initiative (EITI). Although the Ghana EITI Secretariat does not have a role prescribed in the Petroleum Revenue Management Act, 2011, the Government of Ghana's decision to extend the EITI to the oil and gas sector means there will be EITI reporting on petroleum receipts.

transparent, accountable and sustainable manner for the benefit of the citizens of Ghana in accordance with Article 36 of the Constitution and for related matters".

Countries with abundant natural resources often face the dilemma of how to manage the revenue generated by the exploitation of such resources. With the recent discovery of oil in Ghana and the growing oil industry founded upon it, Ghana comes face to face with this dilemma: How can Ghana effectively manage its oil revenue to ensure that it obtains the maximum socio-economic benefit from it? At first sight this may appear to be an issue outside the realm of 'law'. Indeed, both within and outside Ghana, the economic, social, environmental and political aspects of this issue have attracted a considerable amount of scholarship. This thesis will not attempt to rehearse these perspectives, but will rather focus on a much neglected aspect – the *legal* aspects of managing Ghana's oil revenue and how these may impact the goal of ensuring the country obtains maximum socio-economic benefits from its oil.

At present, the legal regime for regulating revenue generated from Ghana's oil industry is governed by a host of legislation and institutions, some of which predate the discovery and production of oil. Among the statutes are the *Constitution of the Republic of Ghana*, 1992; the *National Petroleum Commission Act*, 2011; the *Petroleum Revenue Management Act*, 2011, and the *Petroleum Income Tax Law*, 1987. The *Petroleum Revenue Management Act* was passed by Parliament and assented to by the President of the Republic of Ghana in April 2011 - it is reported Ghana received its first oil revenue that month! It provides a legal basis for how the future petroleum revenue of the country should be managed. It also provides a framework for the collection, allocation and management of petroleum revenue, but the extent to which it does this in a responsible, transparent, accountable and sustainable manner, ensuring that the benefits accrue to the people of Ghana, remains to be seen. At present, there are a number of state institutions involved in the management of oil revenue. These include Parliament, the Ministry of Finance and Economic Planning, the Ghana

Revenue Authority, the Bank of Ghana, the Ghana National Petroleum Company, the Auditor-General, and the Office of the President. The co-existence and operation of these different laws and institutions create a complex web of relationships and their full impact on revenue management is yet to be fully explored.

The argument of this thesis implies that, although the resource curse may be a politico-economic problem, it still has a strong correlation with law, because it is a problem that may arise only in the absence of effective legal and regulatory regimes or strong legal institutions to monitor political behaviour and governance. Therefore, the argument is that Ghana is no different from any other African, mineral-rich country with problems today; it must take legal and regulatory precautions to avoid the resurgence of the resource curse within its economy. In essence, the thesis will involve an extensive evaluation of those regulatory regimes and institutions in Ghana which have a bearing on her nascent oil economy (particularly revenue management). It will identify areas of weakness and attempt to seek solutions for these areas of weakness by examining the legal regimes in Alberta and Norway.

In examining the experience of Alberta and Norway, this thesis will study as potential candidates for legal transplant, important regulatory measures and practices in those countries, which are lacking in Ghana. Areas of attention will include transparency and accountability in the declaration of generated revenue; accountability in the economic disbursement of the revenue; monitoring mechanism to ensure compliance with regulations; the identification of malfeasance, and processes to ensure that identified wrongdoing is effectively punished.

To summarise, my thesis will raise and address the key issue of whether the existing legal and regulatory environment for managing oil revenue in Ghana in the wake of her developing oil economy, is sufficient, effective and strong enough to safeguard against the resource curse which has plagued most African,

resource-rich countries and whether there are lessons to be learned from the success stories of efficient mineral resource revenue management from jurisdictions such as Alberta and Norway.[6] These issues will be explored within the wider framework of governance. Good governance, it will be argued, is vital to ensure the effective and beneficial management of Ghana's oil revenue.

This thesis is organised into five chapters. Chapter One will include this introduction and present an overview of petroleum development in Ghana. Chapters Two and Three will critically assess the regimes for managing oil revenue in Alberta and Norway, respectively. Each chapter will focus on methods of petroleum disposition, the regime for determining the government's share of the economic rent and the regulatory framework for the use of petroleum revenue. The goal is to isolate those key components of a regime which determine how revenue should be collected to ensure maximum returns for the state. These chapters will provide some key starting points for assessing Ghana's fiscal regime and consideration for possible reforms. The third and fourth chapters will focus respectively on the legal regime for generating petroleum revenue and the fiscal management of revenue in Ghana. The last chapter shall conclude the thesis with a series of recommendations and concluding remarks.

2. Overview of Petroleum Development in Ghana

Ghana is endowed with significant extractive resources, including oil, gas and minerals. Before oil was discovered in commercial amounts in 2007, minerals

[6] Some curious minds, or rather pessimists, may want to argue that legal or regime transplant from Alberta and Norway into Ghana may not be feasible on account of differences in the socio-economic and political climate between these countries and Ghana. In a different but related context, Ibironke T Odumosu, "Transferring Alberta's Gas Flaring Reduction Regulatory Framework to Nigeria: Potentials and Limitations" (2006-2007) 44 Alberta Law Review 863 resolves this argument positively.

(particularly gold) were the major extractive industry. After the discovery of oil, petroleum then became the country's second main export, after gold.[7]

The history of hydrocarbon exploration in Ghana dates as far back as 1896[8] with the West Africa Oil and Fuel Company (WAOFCO). Drilling started around Half-Asini in the Western Region. WAOFCO was followed by Société Francaise de Pétrole, which is believed to have begun drilling in 1909.[9] There are however relatively little or no comparable data on the activities of these companies and exploration during that time was intermittent and negligible. It appears that the main focus during this era was in fact hard minerals, such as gold and diamonds.

Other oil exploration activities followed WAOFCO and Société Francaise de Pétrole, but it was not until 1970 that Ghana discovered her first major oil field, the Saltpond Field.[10] Signal Amoco (the company behind the discovery) began producing in 1975. Between 1978 and 1985, an estimated amount of about 3.47 million barrels of oil was produced from the field and 14 billion cubic feet of gas was flared.[11]

The data on these exploration activities are scanty, but up to the late 1970s, the management of the petroleum sector came under the Petroleum Department

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[7] See: www.ghanaweb.com, citing ghanabusinessnews, *Oil becomes Ghana's second main export*, online: Ghana oil watch <http://ghanaoilwatch.org/index.php/ghana-oil-and-gas-news/3100-oil-becomes-ghana-s-second-main-export>.

[8] http:// www.gnpcghana.com.

[9] Osei B Dickson, *A concise history of oil and gas in Ghana.* Ghana Oil Watch, 20 June, 2011.

[10] The Saltpond Field is currently one of the major oil fields in the country. Three oil companies are presently exploring oil in commercially marketable quantities in the Saltpond Field. See: www.gnpcghana.com for an overview of the exploration agreements.

[11] *Brief History of Ghana*, Tullow Oil, retrieved 13 February, 2012, online: <http://www.tullowoil.com/ghana/index.asp?pageid=27>.

of the Ministry of Fuel and Power.[12] In 1983, the Ghana National Petroleum Corporation (GNPC) was established under the enabling legislation, *Ghana National Petroleum Corporation Law*, 1983 (PNDCL, 64). The major object and function of the Corporation was to undertake the exploration, development, production and disposal of petroleum.[13]

Subsequently, the *Petroleum (Exploration and Production) Law*, 1984 (PNDCL, 84) was enacted to regulate the exploration and production of petroleum in the country. Its unique feature is that it created a separate regime for oil. Historically, the same legislative regime applied to petroleum and other minerals. The legislative framework for minerals and mining operated to cover both petroleum and gas resources and other solid minerals.[14] Between the years 1983 and 1989, the GNPC concluded several agreements with a number of foreign firms.[15]

In the early 1990s, GNPC reviewed all earlier oil and gas discoveries to determine whether a predominantly local operation might make exploitation more

[12] This is evident from section 26 of the Ghana National Petroleum Corporation Law, which provides that, "there shall be transferred to the Corporation such members of staff of the Petroleum Department of the Ministry of Fuel and Power as the Secretary may consider necessary and such members of staff shall, subject to the provisions of this Law, be deemed to be employees of the Corporation".

[13] Other objects include (a) promote the exploration and the orderly and planned development of the petroleum resources of Ghana; (b) ensure that Ghana obtains the greatest possible benefits from the development of its petroleum resources; (c) ensure the training of citizens of Ghana and the development of national capabilities in all aspects of petroleum operations; and (d) ensure that petroleum operations are conducted in such manner as to prevent adverse effects on the environment, resources and people of Ghana.

[14] Section 12 of the Minerals Act 1962 defines 'minerals' to include minerals and ores of all kinds, including precious stones, coal, mineral oil and gases. Under the Petroleum (Exploration and Production) Law, petroleum was separated from other minerals. Furthermore, the Minerals and Mining Law, 1985 defines 'minerals' as excluding petroleum, as in the Petroleum (Exploration and Production) Law, 1984 (PNDCL 84). Together, these two laws have created a separate regime for petroleum and minerals.

[15] Notably among them were US-based Amoco, Petro Canada International and Diamond Shamrock.

commercially viable. The activities of the GNPC resulted in the accumulation of a large volume of valuable data that ultimately led to the commercial discovery of oil in the country. In June 2007, the GNPC announced a significant discovery of light oil offshore in the Jubilee Field, together with partners Tullow Oil and Kosmos Energy. According to Tullow Oil, it was one of the biggest oil finds in Africa in recent times.[16]

As expressed by the Managing Director of GNPC, Thomas Manu, "the significant discoveries are not surprising given the extent of work done by the Corporation over the years and the intense interest in the Tano and Cape Three Points basins that these efforts have generated".[17]

Since Jubilee, the country has discovered more oil fields. From 2007 to 2013, a total of twenty three (23) oil field discoveries have been made by the GNPC and its partners. This is very significant given the nascent nature of the industry. Table 1 is a graphic representation of the various discoveries made after the Jubilee discovery in 2007.

[16] "UK's Tullow uncovers oil in Ghana", BBC News, 18 June, 2007.

[17] http://www.gnpcghana.com.

Table 1: Additional Oil Discoveries Made Since Jubilee[18]

BLOCK/OPERATOR	DISCOVERIES	DISCOVERY PERIOD	HYDROCARBON TYPE	STATUS
GNPC	Ebony	November, 2008	Condensate/Gas	Marginal
DWT/TULLOW OIL	Tweneboa-1	March, 2009	Gas Condensate	PoD
	Tweneboa-2	February, 2010	Oil	PoD
	Owo/Enyenra-1	July, 2010	Oil	PoD
	Ntomme	January, 2011	Oil & Gas	PoD
	Wawa	July, 2012	Oil & Gas	Exploration
WCTP/KOSMOS ENERGY	Odum-1	March, 2008	Heavy Oil	Marginal
	Mahogany-Deep	January, 2009	Light Oil	Appraisal
	Teak-1	February, 2011	Oil & Gas	Appraisal
	Teak-2	March, 2011	Gas	Appraisal
	Banda-1	July, 2011	Oil	Marginal
	Akasa-1	August, 2011	Light Oil & Gas	Appraisal
OCTP/ENI	Sankofa-1	July, 2009	Gas	Appraisal Completed
	Gye Nyame-1	July, 2011	Gas	Appraisal Completed
	Sankofa East	September, 2012	Oil & Gas	Exploration
DWTCTP/HESS	Paradise-1	May, 2011	Oil & Condensate	Exploration
	Hickory North	June, 2012	Oil & Condensate	Exploration
	Beech	September, 2012	Oil	Exploration
	Almond	October, 2012	Oil	Exploration
	Pecan	December, 2012	Oil	Exploration
	Cob	January, 2013	Oil	Exploration
	PN-1	February, 2013	Oil	Exploration
DWCTP/LUKOIL	Dzata-1	February, 2009	Oil & Gas	Appraisal

Source: GNPC Geology Department

[18] *2013 Annual Report on the Petroleum Funds,* <http://www.mofep.gov.gh/sites/default/files/reports/2013_Annual_Petroleum_Report.pdf> at 11.

As shown in Table 1, most of these discoveries are still at the exploration and appraisal stage. It is expected that their development will increase the overall oil reserves of the country.

At the end of 2013, Ghana had a proven crude oil reserve of 0.66 billion barrels,[19] 1 trillion cubic feet ('tcf') of natural gas, and about 5 tcf volume of natural gas is anticipated for the future (undiscovered resources).[20] Almost all the country's oil reserves are located offshore. Currently, there are four oil and gas fields in the Jubilee Field - the main field for production. These include Mahogany-East Field (excluding Southeast Jubilee), Twenaboa Field, Enyenra Field (excluding Owo) and FPSO Kwame Nkrumah MV21.[21] In June, 2013, there were 17 wells and 9 producers.[22] The UK-listed operator, Tullow, is the main stakeholder in the Jubilee field. It has a total stake of 36.05%. Other shareholders include: Ghana National Petroleum Corporation (GNPC) 13.75%, Kosmos 23.49%, Anadarko Petroleum Corp 23.49%, and Sabre Oil and Gas 2.81%.[23]

As at the end of 2013, the Jubilee Partners produced over 83 million barrels of oil, with an approximated daily production of 110,000 barrels.[24]

The contribution of Ghana's petroleum sector to the country's economic growth is significant. As at the third quarter of 2013, Ghana's total petroleum

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[19] See: <http://www.eia.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=5&pid=57&aid=6>.

[20] See: <http://www.ghanagas.com.gh/en/faqs/commercial.php>.

[21] See: *Ghana oil watch*, <http://ghanaoilwatch.org/index.php/jubilee-field-unit-area>.

[22] Gilberta Yevi, *Jubilee Field Development: Projects & Production Performance*, online: <http://64be6584f535e2968ea8-7b17ad3adbc87099ad3f7b89f2b60a7a.r38.cf2.rackcdn.com/Jubilee_Development_Project_Tullow.pdf>.

[23] Thomas Kastning, *Basic Overview of Ghana's Emerging Oil Industry*, online: Friedrich Ebert Stiftung, < http://www.fesghana.org/uploads/PDF/BasicOverview_OilEconomy_Ghana_2011.pdf> .

[24] *Ghana - oil and Development*, online: KOSMOS Energy <http://www.kosmosenergy.com/operations-ghana.php>.

receipts, including proceeds from oil lifted by the GNPC on behalf of the state, was USD 707.28 million (GHc 1,358.18 million).[25] Notwithstanding this relatively small figure, the petroleum sector now constitutes one of the most significant sectors in Ghana. In 2013, the industry sector recorded a growth of 9.1 per cent, up from 7.0 per cent in 2012. This has been attributed to the 37.5 per cent growth in petroleum activities in 2013.[26] By the end of 2013, petroleum revenue receipts contributed 6.1 to the GDP, constituting 21.7 per cent of the total contribution of this industry sector.

Currently, the major challenge facing Ghana's oil and gas industry is the maritime boundary dispute with Côte d'Ivoire over the owner of the Continental Shelf.[27] Each of these countries is claiming ownership of a disputed field that is estimated to have about two billion barrels of oil reserves and 1.2 trillion cubic feet of natural gas.[28] It has been mentioned that several companies, including Statoil, have already declined oil exploration in the disputed fields.[29] The government of Ghana has stated that it is optimistic that the dispute with Côte d'Ivoire will be resolved peacefully by the end of June 2014.

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[25] See: *2013 Annual Report on the Petroleum Funds,* <http://www.mofep.gov.gh/sites/default/files/reports/2013_Annual_Petroleum_Report.pdf>.

[26] *The 2014 Budget Statement and Economic Policy*, online: Ministry of Finance, Republic of Ghana <http://www.mofep.gov.gh/sites/default/files/budget/2014_Budget_Statement_0.pdf>.at 19.

[27] There is a joint committee set up by both countries to resolve the dispute, although Côte d'Ivoire has petitioned the United Nations Convention on the Law of the Sea (UNCLOS) to demarcate the territorial maritime boundary if current negotiations with Ghana fail (see: Al-Hajj, *Danger! Ghana could lose "oil war" with Ivory Coast*, online: GhanaWeb (November, 2013) < http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=292749>.

[28] See: *The Chronicle, The State of Oil and Gas Industry in Ghana-the Nagging Issue*, online: allAfrica < http://allafrica.com/stories/201402261325.html>.

[29] *Ibid*.

The next chapter will assess the tenure of oil and gas operations and the management of oil revenue in Alberta.

CHAPTER TWO: THE FISCAL REGIME AND MANAGING OIL REVENUE IN ALBERTA

1. Introduction

Maximising oil revenue is the ultimate goal of every fiscal regime which applies to the oil industry. The fiscal regime will determine the Government's share of the production of natural resources in the country. It will also influence international oil companies in deciding whether or not to invest there. This chapter will specifically focus on the regime established in Alberta – a jurisdiction where there is a thriving oil industry - to specifically examine the various ways in which the government partakes of the financial returns from oil production. Two key components of the regime – the regime for mineral rights disposition and how revenue accrues to the government, will be considered. It will in addition explore how oil revenue has been managed under the regime. The goal is to isolate key components of the regime which ensure maximum returns to the state while encouraging investment. These key components will provide focal points for assessing Ghana's fiscal regime, and if necessary, a series of possible reforms.

2. The Development of Minerals in Alberta

Alberta is a Canadian Province which is endowed with abundant natural resources.[1] The mineral sector is an important segment of Alberta's economy and plays a significant role in the socio-economic development of the Province.[2] The

[1]Alberta oil sands, conventional oil and natural gas constitute some of the highest in terms of global reserves and the highest in Canada. Alberta ranks third following Saudi Arabia and Venezuela, in terms of proven global crude oil reserves. It is estimated that as at 2012, conventional oil reserves for the Province amounted to around 1.5 million barrels, with oil sands standing at 169 billion barrels. Natural gas reserves at the time were 39 trillion cubic feet (see: Alberta Energy, *Facts and Statistics*, online: < http://www.energy.alberta.ca/oilsands/791.asp>).

[2]In 2011, approximately 116,000 people were employed in Alberta's upstream energy sector, which includes oil sands, conventional oil, gas and mining. In 2011, the energy sector accounted for 27.6 percent of Alberta's GDP (see Alberta Energy, *Facts and Statistics*, online: < http://www.energy.alberta.ca/oilsands/791.asp>).

upstream energy sector of the energy industry is made up of conventional oil, natural gas, oil sands and mining.[3]

The ownership and regulation of mineral resources in the Province have passed through some significant changes. Until 1930, the federal government retained ownership and legislative power of natural resources located in the Province.[4] However, with the passing of the *Constitution Act,* 1930, the Province, together with Saskatchewan and Manitoba, gained ownership of its natural resources.[5] Vesting ownership allowed the Province to provide its own legislative framework for regulating and managing resources, subject to the federal legislative powers set out in the Constitution Act. The federal powers are particularly important in the areas of inter provincial and international regulations, but the day to day management of oil and gas is almost entirely under provincial control.

The scheme of the next two sections will first of all be to examine the regime for the acquisition of mineral rights (the tenure-granting system) and then to examine the various ways in which the government partakes in the financial returns from oil production in the Province.

3. The Disposition of Crown Interests in Mineral Resources

Minerals in Alberta are mostly owned by the Crown, but there are instances where mineral rights are held by private persons. In Alberta, the Crown owns 81% of the Province's mineral rights. The remaining 19% of the mineral rights are owned by the federal government on behalf of First Nations or in National Parks, and by

[3]Although Alberta is certainly endowed with a number of natural resources, these other minerals are relatively insignificant compared to the oil sands, conventional oil and natural gas.

[4]This was the position even when Alberta entered the Confederation in 1905.

[5] See also the *BNA Act*, 1867.

individuals and companies.[6] In this subsection, the mode of mineral rights acquisition in Alberta will be considered. The focus here will mainly be on the disposition of Crown interest.

3.1 The Tenure System in Alberta

Alberta's tenure system involves a number of different classifications and categories. Basically, the Province has two tenure structures - one for natural gas and conventional oil, and the other for oil sands. The differences in systems reflect the unique nature of each resource and how the resources are positioned in the extractive industry. The tenure system is designed to ensure the efficient and effective grant of petroleum and natural gas rights with provisions to safeguard the public interest.

The regulatory framework currently in force in Alberta's conventional oil, natural gas and oil sands sector includes the *Mines and Minerals Act*, RSA 2000, c F-17 (MMA), *Petroleum and Natural Gas Tenure Regulation*, Alta Reg 263/1997 (PNGTR), *Oil Sands Tenure Regulation*, 2010, Alta Reg 196/2010 and the *Mines and Minerals Administration Regulation*, Alta Reg 262/1997 (MMAR). The PNGTR is the regulatory framework that governs the disposition of petroleum and natural gas (P&NG) rights in the Province, and the Oil Sands Tenure Regulation governs the disposition of Crown interest in oil sands. The MMA governs the management and disposition of rights in Crown-owned mines and minerals,[7] including the levying and collecting of bonuses, rent and royalties. It is only the tax provisions which remain outside the MMA.

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[6] For a comprehensive exposition on this, see: Alberta Energy, *Energy's History in Alberta*, online: <http://www.energy.alberta.ca/About_Us/1133.asp>.

[7] The Mines and Minerals Act defines a disposition as a grant, a transfer, or an agreement.

To undertake exploration and production activities, the prospective extractor must obtain an agreement from Alberta Energy.[8] Exploration and production activities start with the granting of a lease or a licence.[9] The lease or licence agreement provides the rights and obligations for exploration and development in the Province. Initially, licence was only for exploratory purposes and did not provide a right to produce petroleum and/or natural gas under the licence. Currently, licence grants to the licensee not only the right to explore, but also to produce. Leases have always been for production. It is worthy of note that both geophysical survey and exploration by drilling are covered under the lease agreement.[10]

A petroleum and natural gas lease or licence is defined in the MMA as a deed granting rights to either petroleum, natural gas, or both, issued under the Act or the preceding Act.[11] An oil and gas lease/licence grants the exclusive right to drill for, recover and remove petroleum and natural gas which are the property of the Crown in the leased or licenced area, subject to any exception expressed in the agreement.[12] Compared to leases, licences are for a shorter term. Leases, however, are for long-term production and can be extended as long as the project remains productive and profitable.

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[8] "Alberta Energy" is the body responsibly for the management and development of energy and mineral resources in Alberta. Among its core functions is grant industry the right to explore for and develop energy and mineral resources.

[9]Under the Mines and Minerals Act, a petroleum or natural gas licence/lease grants the same rights to petroleum, natural gas, or both, as is covered under the agreement (see section 81 of the Mines and Minerals Act and section 14 of the Petroleum and Natural Gas Tenure Regulation).

[10] Alta Reg 263/1997, s. 6; Alberta Energy publication; Alberta's Oil and Gas Tenure, 2009< http://www.energy.alberta.ca/Tenure/pdfs/tenure_brochure.pdf> at 3-11.

[11] Section 80(1) a & b of the *Mines and Minerals Act.*

[12] Section 4 of the *Petroleum and Natural Gas Tenure Regulation*.

A licence under the PNGTR is issued for an initial term of 2 years, 4 years, or 5 years, depending on the remoteness of the area concerned.[13] The difference in the initial term for the regions is to account for the differences in accessibility, geology, climate change conditions and topograghy.[14] The Regulation puts a ceiling on the maximum area of the location of a licence.[15] Although licences were originally intended for short-term exploratory activities, they may now be continued as production leases if exploration yields oil and gas that would be profitable to extract.[16] A licensee is obligated to drill a well in a location in its first term to evaluate P&NG rights contained in the licence. This is called a validation well. This obligation can be satisfied by drilling on the location of the licence, or by grouping it with other initial term licences in the immediate area.[17] The grouping of licences is allowed to reduce the need to drill unnecessary wells.[18] When a licence reaches the end of its intermediate term, it expires unless the holder can prove that the area covered has petroleum and/or natural gas that can be produced.[19]

A petroleum and natural gas lease is issued for a primary term of 5 years. Unlike a licence, there is no requirement for a lessee to drill a well or produce. At the end of the primary term the lease may be continued if the lessee demonstrates that the land is located in a productive spacing unit.[20] Thus, when a lease reaches

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[13] Alta Reg 263/1997, s. 6.

[14] *Supra* note 10 at 15.

[15] The maximum area of the location of a licence is (a) 15 sections in the Plains Region, (b) 32 sections in the Northern Region, and (c) 36 sections in the Foothills Region (See: Alta Reg 263/1997, s. 7).

[16] See generally: Alta Reg 263/1997 ss. 12, 14-18, on how a licence or a lease may be continued after expiration.

[17] See PNGTR, s. 10.

[18] *Supra* note 10 at 17.

[19] *Supra* note 10 at 17.

[20] "Spacing unit" is defined as a drilling spacing unit pursuant to the *Oil and Gas Conservation Rules*, Alta Reg 151/1971, PNGTR s. 1.

the end of its primary term, it expires unless the lessee can prove that it is productive.[21]

If a lease is proven productive, it will continue indefinitely beyond the end of the primary term.[22] The tenure ends when the lessee can no longer prove his agreement is capable of producing oil or gas in paying quantities. The lease may also be lost through rental or royalty payment default, or by voluntary surrender.[23] There are also reversion provisions designed to return to the Crown inactive lands.

Part 4 of the *Mines and Minerals Act*, and the *Oil Sands Tenure Regulation*[24] provides the statutory regime for the granting of leases[25] and permits[26] to prospective oil sands developers. A permit and a lease convey equal rights. The significant difference between a lease and a permit is in respect of the duration. An oil sands lease grants to the lessor the exclusive right to drill for, win, work, recover and remove oil sands from the property which are covered under the agreement.[27] The agreement, however, does not convey interest in natural gas or petroleum in the area it covers, unless expressly stated. As a result,

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[21] See in general: sections 14 and 15 of the Petroleum and Natural Gas Tenure Regulation.

[22] See: Alberta Energy, *Tenure*, online: < http://www.energy.alberta.ca/OurBusiness/tenure.asp> for more elaboration on the Alberta Tenure system. For how the Minister's discretion is exercised, see: Industrial Coal & Minerals Ltd v. Alberta (1977), 5 AR 612.

[23] See: Alberta Energy, *Tenure*, online: http://www.energy.alberta.ca/OurBusiness/tenure.asp, for more elaboration on the Alberta Tenure system.

[24] Alta Reg 196/2010. This Regulation replaces the Oil Sands Tenure Regulation, Alta Reg 50/2000.

[25] 'Lease' under the Regulation means an agreement issued in the form of a lease that grants rights in respect of oil sands.

[26] 'Permit' under the Regulation means an agreement issued in the form of a permit that grants rights in respect of oil sands.

[27] Section 4 of the Oil Sands Tenure Regulation.

oil sands leases may be granted separately from a natural gas or petroleum lease on the same piece of land.[28] This is termed as 'split title'.[29]

The Regulation provides for a 5 year term under a permit,[30] while the term of a primary lease[31] is 15 years.[32] The maximum area covered by an oil sands agreement is 9216 hectares.[33] An oil sands lease may only continue beyond the primary term through production, or if in the opinion of the Minister, the lessee has attained the appropriate minimum level of evaluation.[34] If the activity

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[28] The idea was good, but in most cases this lead to conflicting interests over the same parcel of land. Although, not entirely settled, to some extent Legislation and decided cases have been able to regulate such apparent conflicts (See generally: The Oil and Gas Conservation Act, R.S.A. 2000, c.O-6 and the Oil Sands Conservation Act, R.S.A. 2000, c. O-7. See also: *Alberta Energy Co v. Goodwell Petroleum Corp*, 2003 ABCA 277, and DR Percy ed, *Basic Oil & Gas Law: Cases and Materials*, 2014, ed, looseleaf (Alberta: Faculty of Law, University of Alberta, 2014) at 51-58).

[29] From the perspective of the government, such disposition facilitates the simultaneous development of the Province's oil sands and natural gas (or other minerals), without the necessity for one to be halted for the development of the other. Although the development of oil sands seems to have halted natural gas development in oil sands areas, the Alberta Energy Resource Conservation Board (the Board is established under the Energy Resources Conservation Act, R.S.A. 2000, c. E-10) has used this approach to regulate the conservation of the Province's resources. See in general: Gulf Canada Resources Limited Request for Shut-in of Associated Gas, Surmount Area, proceedings 960952, EUB Decision 2000-22 (March 2000) and Athabasca Oil Sands Corp., Requests for Interim Shut-in of Gas, Leige Field, Athabasca Oil Sands Area, 2011, ABERCB 012 (in David Percy, ed, Basic Oil and Gas law: Cases and Materials, 2014 ed, looseleaf (Alberta: Faculty of Law, University of Alberta, 2014) at 58-69.

[30] Alta Reg 196/2010, s. 7.

[31] 'Primary lease' means: (i) a lease issued out of a permit in accordance with the Regulation, (ii) a lease issued as a result of an application under section 11, or (iii) any other lease that is issued under section 16 of the Act on or after March 8, 2000, but does not include a deemed primary lease (see section 1 of the Regulation).

[32] See section 12 of the Oil Sands Tenure Regulation. 15 years for an oil sands lease is significant, given the number of years a developer may spend before an oil sands project is brought to the production stage. The Regulation makes provisions for a permittee, during the term of the permit, to apply for one or more primary leases of oil sands rights in the location of the permit. Section 8 of the Regulation provides the stated conditions to be satisfied for such an application.

[33] Alta Reg 196/2010, s. 5.

[34] See section 14 of the Oil Sands Tenure Regulation.

continues to be non-productive, the lessee will be liable to pay an escalating rent under the Regulation. The amount will depend on the location.[35]

Licences and leases are disposed of by the Crown at sales by public tender in a bidding form, known as the bonus bidding system. There are however limited instances of direct purchases, where, upon application, the Minister may issue an agreement if warranted.[36] However, the vast majority of the agreements are issued under the tender method.[37]

To acquire the rights to develop the resource, the company must place a bid in a competitive auction.[38] This is an important source of income to the government. Prospective investors with information on the resource potential of particular areas may request that such land be posted for auction.[39] It is the investor that determines whether the posting should be in the form of a lease or licence. The lease parcel or licence parcel is posted on the Alberta Energy's Electronic Transfer System(EST).[40] The land is acquired from the government in

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[35] See generally, sections 17 and 18 the Oil Sands Tenure Regulation.

[36] An example is where the petroleum and natural gas rights in a spacing unit are part Crown and part freehold, with the Crown portion comprising less than 50 percent of the smallest applicable spacing unit, the Department allows the party who owns or holds an interest in the rights by virtue of a freehold lease, to acquire the Crown rights by direct purchase.

[37] *Supra* note 10 at 12-14.

[38] Sunley, Baunqaard and Simond rightly note that, these are very suitable only in highly prospective areas where there is strong competition among investors for petroleum rights (see: Emil M. Sunley, Thomas Baunqaard and Dominique Simond, *Revenue from Oil and Gas Sector: Issues and Country Experience*, online: <http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=612052B7A4E7E8C626FA7EDF9D56F8AD?doi=10.1.1.202.7408&rep=rep1&type=pdf>. In 2012, the estimated amount of revenue collected from bonus bids amounted to $3,312 billion. There has, however, been a significant drop to $1,053, as at December 2013 (see: <http/:wwww.alberta.energy.ca/About_Us/2564.asp.>

[39] See section 16 of the MMA.

[40] *Supra* note 10 at 14.

regular, sealed-bid auctions; the highest bidder gets the lease or licence.[41] Alberta Energy each year, on average, holds 24 sales. The normal posting cycle is 17 weeks, consisting of a two-week acceptance period, seven weeks for internal processing and eight weeks from the publication date of the Public Offering Notice to the sale date.[42] The total bid request for each parcel includes the $625 agreement issuance fee and the rental for the first year of the agreement at $3.50 per hectare. These payments are in addition to the actual bonus amount paid by the investor upon completing a successful bid. There is a standard minimum bonus bid of $2.50 per hectare for leases and $1.25 per hectare for licences.[43]

The bidding amount is at the discretion of the investor. Almost invariably, the amount is determined by the expected monetary value (EMV) of the project.[44] This takes into account all costs, royalties, taxes and the rate of return.[45]

There are surface rights issues relating to leases and licences. Although in most cases, it is the Crown which owns the minerals, the land surface may belong to individuals other than the Crown.[46] In such a case, a licensee or lessee must seek right of entry from the land owner. Thus, to carry out mineral exploration and development operations, it is necessary to obtain appropriate rights, not only in the underlying minerals, but also for the surface of the land.[47] Where both mineral and surface rights are vested in the Crown, a lessee of a mineral right must apply for surface access under the *Public Lands Act*, RSA 2000, c P-40 and the

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[41] This is invariably a transparent means of acquiring mineral rights.

[42] *Supra* note 10 at 12

[43] *Supra* note 10 at 14

[44] The investor is influenced by the consideration of an overall return for his investment.

[45] See "Royalty Information Briefing #5 - Bonuses and Land Rental Fees" (Alberta Royalty Review, 2007).

[46] Generally, freehold/private surface rent is set by negotiation, or by the Surface Rights Board (if the parties cannot agree).

[47] This is regulated by the Law of Property Act, RSA 2000, c L-7 and the Surface Rights Act, RSA 2000, c S-24.

Public Lands Administration Regulations, Alta Reg 187/2011. The lessee is then awarded a mineral surface lease. All surface rentals are established under that lease. It is, however, not certain how much must be paid as surface rent to the Alberta Crown. This is one of many areas where ministerial discretion is exercised.[48]

Private surface rights are mostly negotiated with landowners, but there are statutory provisions where there is a deadlock. Under the *Surface Rights Act*, RSA 2000, c S-24, no licensee or lessee has right of entry with respect to the surface of any parcel of land until the holder of the licence or lease has obtained the consent of the owner and the occupant of the surface of the land.[49] This provision seems to alter the common law position where the mineral owner may disturb the surface owner's right to use the surface, to an extent which is reasonably necessary to work the minerals.[50] However, where consent is refused by the owner, the mineral rights holder may be granted right of entry by the Surface Rights Board upon payment of compensation to the surface owner.[51] In this way, the Board is able to prevent surface rights holders from frustrating or obstructing mine and mineral development.[52]

3.2 Assessment of the Tenure System in Alberta

The bonus bidding system in Alberta is an effective means of resource disposition. The system has worked well due to the resource potential and the favourable

[48] See section 9.1 of the Public Lands Act.

[49] See section 12 of the Surface Rights Act.

[50] See: *Cabre Exploration Ltd v. Arndt* (1986), 45 Alte LR (2d) 137 (QB).

[51] For when a right of entry order may be issued, see: *EnCana Corp v. Campbell*, 2008 ABQB 234.

[52] For a more complete discussion on the acquisition of surface rights as they exist in Alberta, see: Alastair R. Lucas and Constance D. Hunt, *Oil and Gas Law in Canada* (1990) at 87-122.

investment climate in the Province.[53] Such a system is in fact highly dependent on the profitability of a project. It is arguable whether investors are ready to invest huge sums of money into such high risk ventures without the requisite information concerning returns on investment, but judging from the proven and recoverable reserves of the Province, Alberta has the requisites for such a system. In addition, the political atmosphere, security for investment and the economic conditions in Alberta place the Province in the perfect position for such a system. Compared to other methods of resource disposition, the bidding system is easy to administer and ensures transparency. Bonuses ensure that the government receive a portion of the benefits arising from the development of the Province's resources, even at pre-production stage.[54] Payments collected from auctions constitute means through which the government can secure a direct return to ownership from the development of natural resources. In the 2011/2012 fiscal year, bonuses from sale of crown leases accounted for $3,312 billion of the $11,636 billion non-renewable resource revenue. This is highly significant given that the revenue generated is risk free, and also at relatively no cost to the government.

Economic theory on resource disposition favours competitive sale. It argues that the bidding amount is at the discretion of the bidder. The bidder is not compelled to bid more than he thinks the net value of the goods would be and is thus guided by the economic realities of the proposed project.[55] Tussing is of the opinion that the highest bidder will, by definition, be the most optimistic about

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[53] As at 2012, Alberta was 3rd after Saudi Arabia and Venezuela in terms of world oil reserves.

[54] Although bonuses ensure some upfront revenue for the Government, revenue generation is not the sole purpose of bonuses. They are also used in the allocation of mineral rights. The amount of a bonus payment is essentially determined entirely by the investor. When there is a competitive bidding process, bonuses represent a very efficient way to fairly allocate mineral rights. See "Royalty Information Briefing #5 - Bonuses and Land Rental Fees" (Alberta Royalty Review, 2007).

[55] For a more critical analysis of the discretionary system as contrasted with the auction system, see Kenneth W Dam, "Oil Resources: Who Gets What How?" (1976) 31:1 Journal of International Affairs 153-155.

the benefit-cost relationship and there is good reason to presume that, on average, he is the most likely to succeed in the venture.[56] In terms of allocating resources, competitive sales serve the correct purpose of giving land to a company with the greatest potential to succeed. Moreover, the bonus may serve as motivation for the developer to undertake exploitation of the resources earlier rather than later, in order to recover costs quickly upon production. The system is also more transparent and has the attribute of eliminating corruption. Alberta's process has developed into a highly automated system. There is little or no discretion in the award of contracts under the bidding system. It is however possible that competitive sale will tend to favour well-established companies to the extent that the lease/licence is awarded to the highest bidder.

The five (5) year duration for petroleum and natural gas rights is highly significant. Limited duration provides flexibility for the government to ensure that it is not locked into a transaction of an extremely long duration, especially if, for whatever reason, the terms are unfavourable. A shorter term for a lease may also force a lessee to undertake development so as to avoid losing a lease.

The role of the Surface Rights Board is to be highlighted for developing countries, given the extent to which land litigation impedes development, especially through landowners. Nevertheless, some critics are of the view that the present divided land tenure situation in Alberta is one which other jurisdictions would do well to avoid. Some have argued that the tenure system may impede mineral rights development since in some cases the surface owners impose unreasonably high charges. Day and Goel note the concern over holders of grazing leases on public land, who are enriched by surface payments which extend well

[56] See: Arlon R Tussing, *An Economic overview of Resource Disposition Systems*, in Nigel Bankes and J Owen Saunders, *Public Dispositions of Natural Resources* (Canadian Institute of Research Law, 1984) at 22.

beyond compensation for inconvenience and loss of pasturage.[57] This is however doubtful given the work carried out by the Surface Rights Board.

In sum, Alberta's tenure system is one effective means of public resource disposition. It has in place a well tried and highly automated bonus bidding system. The system is transparent and ensures that the government realise significant amount of revenue even at the pre-production stage. In addition, the bonus system is one effective means to eliminate corruption. The combination of the bonus system and the reasonable short term for petroleum and natural gas agreements also provide an active exploration and development environment.

4. Elements of Government Share of Petroleum Revenue

4.1 Revenue Sources

This subsection will critically assess the various methods through which the government participate in the financial returns from mineral development.

4.1.1 Signature/Bonus Fees

The fiscal regime in place in the Province provides for one significant source of pre-production revenue for the government. This is through bonuses from the sale of Crown leases. Bonuses ensure considerable upfront revenue for the government and may encourage companies to explore and develop contract areas more rapidly. Revenue from bonuses and sales of Crown leases are paid through the auctions in which Crown licences and leases are sold. Bonus bids provide the Crown with risk-free revenue, regardless of whether or not the oil or natural gas producer subsequently finds a commercial deposit on the lease.[58] Empirical

[57] See Michael J Day and P Goel, *Energy and Mineral Resource Development - the Alberta Experience,* at 31 - 49 for a brilliant exposition on land tenure as it has existed in Alberta.

[58] This means that the investor bears the risk that the project will not be economically viable because returns to the government are up-front and fixed. See: Alberta Energy, *Royalty Information Briefing #5 - Bonuses and Land Rental Fees.* (Alberta Royalty

studies of the operation of the bidding system in Alberta carried out by Watkins and Kirkby have found that overall, the bonus-bidding system ensures that the government of Alberta captures a high share of *ex ante* economic rent.[59] Table 2 below is illustrative of bonus contributions to the overall government share from the development of Alberta's mineral wealth.

Table 2: Alberta Resource Revenue: Bonus Contributions

	2008/09	2009/10	2010/11	2011/12	2012/13
Net Non-Renewable Resource Revenue ($Millions)	$11,915	$6,768	$8,428	$11,636	$7,622
Bonuses & Sales of Crown Leases	$1,112	$1,165	$2,635	$3,312	$1,053
Bonuses in %	9.33%	17.21%	31.26%	28.46%	13.81%

Sources: Alberta Energy

As can be seen above, bonuses constitute a significant source of income for the government. In addition to this economic benefit, they have the added advantage of ensuring transparency in the system and reducing corrupt practices. Bonuses represent an efficient and transparent way to allocate mineral rights, but they also correlate with other factors, such as royalties, taxes and the price of petroleum products. Thus, changes in government revenue from bonuses are largely influenced by the extent of financial return that investors expect from their investment.

4.1.2 Land Rental Fee

The Crown also requires a land rental fee on leased properties. The land rental fee takes two forms: first, payment of rent for each year of the agreement (described

Review, 2007) online: <http://www.energy.alberta.ca/Org/pdfs/InfoSeries-Report5-Bonus.pdf>.

[59] See: GC Witkins and R Kirkby, "Bidding for Petroleum Leases: Recent Canadian Experience" (1981) *Energy Economics,* at 182-186. Also reported in Alexander G Kemp, "*International Petroleum Rent Collection around the World*" (The Institute for Research on Public Policy, 1987) at 91.

as lease rental payment): and second, a surface rental payment (where the land surface is owned by the crown). The land lease rental fee is regulated under the *Mines and Minerals Administration Regulation*.[60] This applies to conventional oil and natural gas, as well as oil sands project(s) in the Province.[61] Alberta applies a fixed fee in the area covered by the agreement.[62] At present, this rate is $3.50 per hectare and must be paid for each hectare covered under the agreement.[63] Moreover, rent is a fixed cost and is not affected by production. The land rental fee ensures some revenue for the government, both at pre-production and during the production stage.[64] In addition to generating revenue for administrative purposes, the land rental fee encourages production from the perspective of both the government and the investor, since the rent must be paid, whether one produces or not. These impositions also serve as a provision to encourage the relinquishment of mineral rights in areas where exploration or production is not being actively pursued.

Surface rent must be paid to the Alberta Crown (if the Crown is the surface owner). This is regulated under the *Public Lands Act* and the *Public Lands Administration Regulations*. The lessee would be awarded a mineral surface lease upon application under the Regulation. Surface rentals are set under the lease agreement for the surface rights. Unlike the lease rental payment, it is not certain

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[60] Alta Reg 262/1997. Section 20 of the Regulation provides that the lessee of an agreement is liable to the Crown for the payment of rent for each year of the term of the agreement.

[61] It must be mentioned here that the rent paid under Alberta Crown petroleum and natural gas (or oil sands) lease differs from the rent paid for surface use.

[62] Where the area concerned does not come under Crown land, the 'private owner' will take the rental fee from the developer.

[63] See: *Alberta Energy, Tenure*, online: < http://www.energy.alberta.ca/OurBusiness/tenure.asp>.

[64]They also have other basic purposes, such as (1) to encourage the relinquishment of mineral rights where exploration or production is not being actively pursued, and (2) to cover administrative costs associated with managing the resources. For more on this see: *Royalty Information Briefing #5 - Bonuses and Land Rental Fees* (*Alberta Royalty Review*, 2007).

how much must be paid as surface rent to the Alberta Crown. This is one of the many areas where ministerial discretion is exercised.[65]

4.1.3 Royalties

A royalty is the price that the owner of natural resources charges for the right to develop a resource.[66] Royalties are an important part of Alberta's overall fiscal framework. Alberta takes oil and oil sands royalties in cash or in kind, i.e., the physical substance, rather than just money. This allows Alberta not only to get its own prices, but to use oil for strategic purposes – e.g. to support upgrading in the Province.[67]

Over the years, the royalty system in the Province has undergone significant transformations, all aimed at responding to changes in the oil and natural gas industry. At different stages, the fixing of a royalty in the Province has been guided by factors such as the mature and developed nature of the resource, changes in discovery, the processing of resources and major shifts in cost and prices. A historical review of the royalty system in the Province reveals that Alberta has moved from a flat royalty rate for both petroleum and natural gas, as in 1941, to one that is price sensitive.[68] The government first set its royalty rate using a 5% flat rate (of net revenue) for both oil and gas, which was later raised to 10% by 1935. It was raised to a flat 12.5% in 1941 and the government introduced a variable rate option where producers could choose between the 12.5% flat rate or a variable rate of 5 to 15 percent based on production. By 1972

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[65] See section 9.1 of the Public Lands Act.

[66] *Alberta Royalty Review* report, "Royalty Information Briefing - What are royalties", at 1, online: <http://www.energy.alberta.ca/Org/pdfs/FS_Royalties.pdf >.

[67] For a complete discussion on the lessor's right to take royalty shares in kind, see: John Bishop Ballem, *The Oil and Gas Lease in Canada,* 4d (Toronto: University of Toronto Press, 2008) at 187.

[68] See generally: Alberta Energy, *Alberta's Royalty System-Jurisdictional Comparison* (PriceWaterhouseCoopers (PWC) Report, 2009) online: http://www.energy.alberta.ca/Org/pdfs/Royalty_Jurisdiction.pdf, at 12.

the royalty rate had increased to 25% of industry net revenue in response to increasing world prices.[69]

At present, the Province basically maintains a sliding scale royalty structure for natural gas and for conventional oil, but these are separately regulated under different statutes. Each type of royalty will be considered in turn.

4.1.3.1 **Petroleum Royalties**

The *Petroleum Royalty Regulations*[70] apply to royalties on crude oil and gas obtained from petroleum recovered from a well, on or after January 1, 2009. The current hybrid regime is specified in the *Petroleum Royalty Regulation*, 2009. The royalty rate is determined based on a number of factors, including the date when the oil was discovered. The royalty formula for conventional oil is an *ad valorem* royalty applied on a sliding scale designed to accommodate a wide range of price and production combinations.[71] Royalty rates will vary up to 50%, with an Active Pipe Support(APS) rate of $120 per barrel (BBL).[72] Alberta's conventional oil royalties automatically adjust for price and productivity increases. The price sensitive formula ensures some revenue for the government, irrespective of the profitability of the project.[73] In essence, the royalty rate will fall when the oil price is low and vice versa, so as not to discourage investment. Compared to previous

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[69] *Ibid* at 12

[70] Alta Reg 222/2008.

[71] *Ibid*.

[72] See: Alberta Department of Energy, *Talk about royalties*, online: <http://www.energy.alberta.ca/Org/pdfs/FS_Royalties.pdf >.

[73] Critics argue that price sensitivity is not neutral, since it is biased towards the government. An increase in price does not automatically increase profit, since costs may have risen. As was noted by CAPP and the SEPAC, in their report to the royalty review panel, Alberta's conventional royalty structure automatically adjusts for price and productivity, but does not adjust to escalating costs. The Association was of the opinion that it is important to look at both costs and prices together, as it is revenue, less costs, that drives economic development (www.capp.ca).

years, royalties from Alberta's conventional oil exceed those of natural gas, but are almost invariably less than those derived from oil sands. As seen from table 2, at page 26, in 2012/13 the government received $7,622 billion from non-renewable resource. Of the amount, conventional oil accounted for $1,881 billion representing approximately 25%, while natural gas accounted for $945 million, representing 13%.

4.1.3.2 **Natural Gas Royalties**

Regarding natural gas, the *Natural Gas Royalty Regulation* applies to royalties on natural gas recovered and gas products and field condensate obtained on or after January 1, 2009.[74] Natural gas royalties are similar to conventional oil royalties insofar as the formula accounts for price and production volume. Just like petroleum royalties, the royalty rate is also applied on a sliding scale designed to accommodate a wide range of price and production combinations.[75] Natural gas royalties are currently determined at a rate ranging from 5% - 50%, with the rate cap at Cdn $17.59/GJ (gigajoule).[76] Like petroleum royalties, the royalty rates for natural gas fluctuate with energy prices and well productivity. In 2012/2013 royalties from natural gas decreased from $1,304 billion in 2011/2012 to $945 million.

In addition, the existing royalty system applies different royalty rates for petroleum and natural gas, depending on the date of discovery of the oil or gas pool. For example, the *New Well Regulation*, Alta Reg 32/2011, applies to both

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[74] Alta Reg 221/2008.

[75] See the first schedule to the Regulation. The royalty rate is price sensitive and also takes into account the volume of production The Regulation provides for different calculations for the various components of natural gas. Specifically, provisions are made for "Methane, Ethane, Propane, Butanes, Pentanes Plus and Sulphur".

[76] See: Alberta Department of Energy, *Talk about royalties*, online: <http://www.energy.alberta.ca/Org/pdfs/FS_Royalties.pdf >.

conventional oil and natural gas, where a well is classified as a new well.[77] It provides a separate royalty rate for newer pool discoveries, as opposed to older vintages. This Regulation does not apply the sliding scale royalty rate applicable to petroleum and natural gas, mentioned above.[78] The royalty rate is 5%.[79] This is only applicable if the crude oil or gas recovered or obtained from a well event is eligible for production.[80] From the government's perspective, this is to encourage the exploration of new wells in the jurisdiction. It serves as an incentive package for existing producers and new investors to consider exploring new sites.

4.1.3.3 **Oil Sands Royalties**

Compared to petroleum and natural gas royalties, the determination of oil sands royalties in the Province has been a complex issue over the years. This can be explained by the unique nature of Alberta's oil sands. The enormous capital requirements of the oil sands industry and the need to develop the Province's oil sands have been the main determinants of the oil sands royalty regime in the

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[77] Under section 3 of the Alta Reg 32/2011, a well is considered as a new well if it commenced production of crude oil or gas on or after April 1, 2009. A well that recommences production of crude oil or gas in the period commencing April 1, 2009 and ending on April 30, 2010 is deemed to be a new well if the conditions stated under section 3(1) of Alta Reg 32/2011 are satisfied in terms of it being a qualifying well.

[78] For a comprehensive overview of how royalties in general are determined and calculated in the Province see "Oil and Gas Regime: Western Canadian Provinces and Territories" (Alberta Energy, June 2011).

[79] It is only new petroleum and natural gas wells and some wells recommencing production that are subject to a maximum of 5% royalties. It is also worthy of note that the 5% ceases to apply at, (a) the end of the eligible production month cap of the well that contains the well event, (b) the volume cap is reached for the well that contains the well event, or (c) the date that the well becomes part of a Project under the Oil Sands Royalty Regulation, 2009 (AR 223/2008), whichever occurs first.

[80]Under the Regulation, crude oil or gas recovered or obtained from a well event is eligible for production if, (a) it is not excluded from production, (b) it is recovered or obtained from a well event in a new well, including a well event specified in a schedule to this Regulation, (c) the Crown interest in it is greater than 0%, and (d) it is subject to the payment of royalties under the Petroleum Royalty Regulation, 2009(AR 222/2008), the Natural Gas Royalty Regulation, 2009(AR 221/2008), or Section 27 of the Oil Sands Royalty Regulation, 2009(AR 223/2008).

Province. Prior to adopting a generic royalty regime in 1997, Crown royalty interests were negotiated according to a project by project approach. Royalty terms were therefore separately negotiated for each oil sands project or set of projects.[81] Some agreements allowed for net revenue royalty (net profit), while others royalties were calculated according to gross production.[82] For example, oil sands Royalties for Suncor were calculated as the greater of 30% of net revenues or 5% of gross production, while Syncrude paid 50% of the project's net profit (net revenue) to Alberta as royalty. The royalty formula for Cold Lake (In Situ Thermal) consisted of a 1% royalty on gross revenue at start-up, increasing by 1% every 18 months to a maximum of 5%.[83]

Negotiation on a case-by-case basis allowed flexibility in royalty arrangements to accommodate project-specific concerns.[84] This was, however, counterproductive in many ways. Masson and Remillard observed that investors contemplating oil sands development did not have a transparent royalty structure on which to evaluate their investment plans. Moreover, existing oil sands companies were not sure about the future royalty structure which new investment or expansion might face.[85] There was no standardisation and the Province's share of oil sands royalties was left at the discretion of the Minister during negotiations. This emphasised the need to construct a formal royalty structure and

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[81] See: National Task Force Recommendations on Alberta oil sands royalties.

[82] See: Alberta Department of Energy, *Alberta's Oil Sands Fiscal System*

- *Historical Context and System Performance*, online: http://www.energy.gov.ab.ca/Org/pdfs/TechReport-1_OilSands.pdf>.

[83] It has been stated that , the royalty terms applicable to commercial in situ projects prior to the announcement

of the new generic royalty system were based upon the royalty terms provided to Imperial Oil's

Cold Lake project. See *ibid,* at 2.

[84] See: Richard Masson and Bryan Remillard, *Alberta's New Oil Sands Royalty System* (Edmonton, Alberta: Alberta Department of Energy, 1996).

[85] *Ibid*.

consequently, the generic royalty regime was adopted in 1997. It's also a way to secure the regime for both developers and the government and to provide a uniform and common royalty regime that would apply equally to all producers.

At present, the royalty rate is calculated in accordance with provisions under the *Oil Sands Royalty Regulation*, 2009.[86] The Oil Sands Royalty Regulation, adapts a generic royalty regime for oil sands. It establishes a regime for calculating the Crown share of revenue on a rent-based royalty system.[87] It is, however, worthy of note that the regime is not purely rent-based, since it also adopts a price sensitive approach. The royalty formula is based on industry gross and net revenue. Royalties are applied at two stages in the life cycle of a specific oil sands project, namely pre- and post-payout.[88] The pre-payout royalty is determined at a rate of 1% of gross revenue, when the price of oil is $55/barrel or less and is increased to a maximum of 9%, when the price reaches $120/barrel. The net profit interest (NPI)[89] is applied after payouts.[90] For post-payout

[86] Alta Reg 223/2008. This Regulation expires on November 30, 2018.

[87]Under a rent-based regime, current and capital costs are deductible from revenue (with any unused deductions being carried forward at the appropriate interest rate, reflecting the fact that the government shares returns, risk and investment costs with the private sector). See: Jack Mintz and Duanjie Chen*, Capturing Economic Rents from Resources through Royalties and Taxes*, online (The School of Public Policy): <. http://www.eisourcebook.org/cms/Canada,%20Capturing%20Economic%20Rents%20from%20Resources%20through%20Royalties%20&%20Taxes.pdf>.

[88] Pre-payout is the period before an oil sands project makes any profit. Thus, it is the stage where the set-up costs of a project exceed the total cumulative revenue from same. Under section 25 of the Regulation, a project will achieve payout on (a) the effective date of the project, in the case of a project for which the prior net cumulative balance is zero or a negative amount, or (b) the first day of the month during which the cumulative revenue of the project first equals the cumulative cost of same, in the case of any other project.

[89] The NPI is the percentage of net profit (after all expenses is deducted) to be paid to the owner of the oil. In the case of Alberta, the NPI is applied after allowable expenses are deducted to reach post payout.

[90] The concept of payout is hard to understand. It requires considerable knowledge of the cost of the developer's activities. In general, a project reaches payout where the developer has recovered the capital and operating expenditure invested in it. The only disallowed expenditure in determining whether payout is achieved is expenditure on financial costs

production, the rate starts at 25% of net revenue when the oil price is $55/barrel or less and goes up to 40%, when the price reaches $120/barrel.[91] In effect, rising prices mean that more oil sands projects will move from paying an initially lower royalty to the government - known as the pre-payout royalty rate - to a higher tier of payment, as producers recoup their total developmental costs. The rationale is that price movements are normally associated with changes in profitability.[92] This system is designed to reduce disincentives for investment in the oil sands sector, while assuring the government of some revenue from the development of projects.[93] The rent-based royalty is made to accommodate the enormous capital requirement of an oil sands project. It is also a reflection of the policy rationale to encourage development. Oil sands royalties account for a significant part of the Province's non-renewable resource revenue. Table 3 below represents the contribution of Oil Sands royalties to the non-renewable resource revenue from 2008 to 2013.

Table 3: Alberta Resource Revenue: Oil Sands Contributions

	2008/09	2009/10	2010/11	2011/12	2012/13
Net Non-Renewable Resource Revenue ($Millions)	$11,915	$6,768	$8,428	$11,636	$7,622
Oil Sands	$2,973	$3,160	$3,723	$4,513	$3,560

and the initial bonus bidding (lease) costs (see Alberta Department of Energy, *Royalty Review Panel Final Report*, online" <http://www.energy.alberta.ca/Org/pdfs/RoyaltyReviewPanelfinal_report.pdf> at 76.

[91] For an overview of how the royalty is calculated, see Part 4 of the Regulation. See also the Price Water HouseCoopers Report and *Oil Sands Fiscal Regimes: Western Canadian Provinces and Territories*, produced by Alberta Energy.

[92] This may, however, not be the case since it disregards the impact of costs on profit margin. Excessive costs may neutralise any increase in prices and cause profit to remain the same or even fall, although royalties would be payable at a higher rate to respond to the price increase.

[93] The system is quite complex to operate. It requires constant evaluation of operational details by government institutions and involves the continuous auditing of operating details in the oil company, particularly with respect to costs.

Source: Alberta Energy(my emphasis added)

From the table, oil sands in 2012/13 accounted for $3,560 billion, representing approximately 47% of the Province's non-renewable resource revenue.[94]

As in many other economic sectors, investment incentives are widely available under the existing royalty regimes. The fiscal regime offers generous fiscal incentives to extractors of the Province's mineral resources. Royalty adjustment/incentive programmes abound in conventional oil, natural gas and oil sands.[95] These incentive programmes offer the Ministry wide discretion in the determination of the amount of royalty payable under some of these programmes. In essence, the Ministry is given the discretion to offset or reduce royalties paid by oil and gas companies. These are essentially a reduction in royalties in special cases. The incentives are mostly offered in response to mature or declining production in the sector, which provides appropriate risk-sharing between private investors and the government. Of significant importance is the royalty adjustment programme under the *Enhanced Recovery of Oil Royalty Reduction Regulation*.[96] This recognises the declining and maturing state of the Province's

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[94] See: *Annual Report of the Alberta Ministry of Energy*, online: < http://www.energy.alberta.ca/Org/Publications/AR2013.pdf> at 14.

[95] The royalty regime abounds with numerous royalty adjustment/ incentive regulations. For petroleum and natural gas royalty adjustment/incentive programmes, see generally: Low Productivity Well Royalty Reduction Regulation Alta Reg 350/1992; Horizontal Re-entry Well Royalty Reduction Regulation Alta Reg 348/1992; Reactivated Well Royalty Exemption Regulation, Alta Reg 352/1992; Enhanced Recovery of Oil Royalty Reduction Regulation and the Natural Gas Deep Well Drilling Regulation 2010, Alta Reg 198/2010 Some of these regulations have end dates and others are currently being phased out. Others have no end dates and are periodically reviewed. It is imperative for an investor wishing to take advantage of any of these programmes to verify if it is still operating. For an exposition on this, see: "Our Fair Share" (Alberta Royalty Review Report, 2007). Under oil sands there is the Bitumen Valuation Methodology (Ministerial) Regulation, Alta Reg 232/2008 and Oil Sands Allowed Costs (Ministerial) Regulation, Alta Reg 231/2008 (this Regulation expires on November 30, 2018).

[96] Alta Reg 348/1993. This programme has no end date and is reviewed periodically. The Regulation is expected to be reviewed on or before December 31, 2013.

conventional oil.[97] Enhanced recovery technology is being used to extend the lifespan of maturing conventional oil and gas fields. It allows the operator of an enhanced recovery scheme,[98] or a proposed enhanced recovery scheme, to apply to the Ministry for a reduction in the royalties payable under the *Petroleum Royalty Regulation*, in respect of crude oil obtained under the scheme.[99] In general, these royalty adjustment/incentive programmes are meant to provide appropriate risk-sharing between private investors and the government.

4.1.4 Corporate Income Tax (CIT)

The statutory framework for the imposition of corporate income tax is found in *Alberta Corporate Income Tax Act*, 2000, c A-15. Corporate income tax contributes to the overall burden imposed on companies involved in developing Alberta's resources. In 2013, it was set at a flat rate of 10%.[100] Unlike royalties, it is only calculated after production from a company's net revenue.[101] Alberta's CIT is very different from the bonus, royalty and rental fees which are specific to

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[97] The Regulation applies only to crude oil obtained in 1994 and later years.

[98] An 'enhanced recovery scheme' means a scheme, other than a base recovery scheme, to obtain crude oil from a pool that, (i) is required pursuant to section 38(a), or approved pursuant to section 39(1)(a) of the Oil and Gas Conservation Act, and (ii) uses the injection of hydrocarbons, carbon dioxide, nitrogen, chemicals or other material approved by the Minister (see section 1 of the Regulation).

[99]The Minister may approve a royalty reduction in respect of crude oil obtained from a scheme if the Minister is of the opinion that, at the time the information required by the Minister is received, (a) the scheme is an enhanced recovery scheme, (b) more crude oil is likely to be obtained from the enhanced recovery scheme than from the base recovery scheme, (c) the costs estimated by the Minister for implementing and operating the enhanced recovery scheme would significantly exceed the costs estimated by the Minister for implementing and operating the base recovery scheme, and (d) the royalty reduction is in the public interest, which may include taking into consideration the extent of the impact of the royalty reduction on the royalty ultimately payable on crude oil obtained from the approved scheme (see section 4 of the Regulation).

[100] See; Canada Revenue Agency, *Alberta tax and credits*, online: < http://www.cra-arc.gc.ca/tx/ndvdls/tpcs/ncm-tx/rtrn/cmpltng/prvncl/09-eng.html>.

[101] It is part of the fiscal elements taken into account to determine the government share and a project's economic attractiveness. Its importance is equally shared by the government and the resource extractor.

the minerals industry. Unlike other jurisdictions, where the petroleum sector is taxed differently from other sectors, the corporate income tax paid by minerals producers is of general application in the Province. This is a uniform tax paid by all corporations.

Corporate tax is considered to be progressive since it is based on profitability. It is a means by which the government can share in the risk of developing the Province's abundant resources. The government only partakes of the profits which accrue from the business. Costs, such as operating costs and royalties, are included in the permissible deductions made from the taxable income of the mineral producer.

The CIT differs from the tax paid by producers under the Federal Act.[102] A federal income tax is levied on the taxable income of an oil or gas operation. Expenses such as Canadian oil and gas property expenses (COGPE), Canadian development expenses (CDE) and Canadian exploration expenses, are some of the permissible deductions under the federal system.[103] On 1 January, 2012 the tax rate was 15% of taxable income.

4.2 Assessment of Revenue Sources

One key feature of the regime is the significant role given to the Lieutenant Governor in Council and the Minister in regulating the fiscal regime. Unlike other jurisdictions, where the extractive sector is mostly regulated by laws emanating from the legislature, the regime vests the Minister with significant rights and authority under the system operated in Alberta. The Lieutenant Governor in

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[102] 'Federal Act' is defined under the Act to mean the Income Tax Act (Canada) and includes any rules of application that are contained in any Act of the Parliament of Canada that amends the Income Tax Act (Canada).

[103] For an elaboration on the components of the various expenses, see *Oil and Gas Taxation in Canada: Framework for investing in the Canadian oil and gas sector,* online: pwc <http://www.pwc.com/en_CA/ca/energy-utilities/publications/pwc-oil-gas-taxation-2012-10-en.pdf>.

Council is given regulatory authority under certain conditions to provide for lower or higher royalties. This discretion is mostly exercised where it is considered necessary or desirable in the interests of conservation or of maintaining or increasing the recovery of crude oil or natural gas from one or more well events.[104] The discretionary powers vested in the Minister and the Lieutenant Governor in Council are significant, given that royalties in most jurisdictions are defined in legislation. The system has in fact contributed to the effective development of the Province's resources. It offers flexibility for easy adjustment of the regime to meet changing conditions in the industry and enables the government to pursue multiple policy objectives. In addition, the government is able to retain some control over exploration and development activities in the oil industry. It is, however, arguable whether the wider discretionary authority given to the Ministry and the Lieutenant Governor in Council will work in other jurisdictions, such as Ghana. Ideally, the fiscal regime should be defined in legislation in a way that is not too rigid, yet does not leave too much discretion to government appointees, in order to avoid defeating the uniformity principle. In Alberta, the exercise of discretion is not absolute. Although in some cases the law provides for no appeal against a decision by the Minister and/or the Lieutenant Governor in Council there is generally some judicial oversight in the exercise of such discretion.[105]

Alberta's fiscal regime is characterised by royalty regimes over different types of oil and gas. It is doubtful how the system can be adapted by another jurisdiction without effective modifications. The system requires constant evaluation of applications and operations. Under the oil sands regime, considerable knowledge of the costs and expenditure activities of producers is imperative. The system requires vested accounting capacity, which is mostly

[104] See: section 9 of Alta Reg 222/2008 and section 10 of Alta Reg 221/2008.

[105] See generally: *Dunsmuir v. New Brunswick* [2008] S.C.J. No. 9, 2008 SCC 9, for a comprehensive analyses of the Court's approach to judicial review in Canada.

lacking in jurisdictions like Ghana.[106] The oil and gas royalty regimes are also characterised by different regimes for deep wells, new wells, shallow wells, mature wells, experimental wells, etc. This places a heavy administrative burden on the government. Nevertheless, it is apparent the system seems to have worked well in the Province, but such a regime may only benefit producers in jurisdictions like Ghana.

In terms of revenue generation from mineral wealth, Alberta's fiscal regime is fairly effective. Although some critics argue that the Province is not getting its 'fair share' from the upstream development of minerals, there is the need to recognise the peculiar nature of Alberta's mineral wealth. The fiscal regime cannot be viewed in isolation from other equally important factors, such as the nature of the minerals and cost of production. Royalty regimes cannot be designed in a vacuum and must not just focus on revenue generation. A system which does not take into account these considerations may not be effective. In addition, the fiscal regime must always take into account the objectives and constraints specific to the resource country. Advocates have made well thought out schemes for replacement of the regime with a net-profit royalty or net-income tax, but such a system has its own disadvantages, relating to, *inter alia*, the attribution and verification of costs.[107] The net-profit royalty system is a high-risk measure for the government, gaining a return on resource ownership, judging

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[106] See: *Breaking the Curse: How Transparent Taxation and Fair Taxes Can Turn Africa's Mineral Wealth into Development* (Open Society Institute of South Africa, Third World Network Africa, Tax Justice Network Africa, Action Aid International & Christian Aid: March 2009) at 29.

[107] See generally: Rob Fraser and Ross Kingwell, "Can Expected Tax Revenue be Increased by an Investment Preserving Switch from an Ad Valorem Royalty to Resource Rent Tax" (1997) Resource Policy 23:3 103-108, on whether a government can switch regimes from an *ad valorem* royalty to a Resource Rent Tax (RRT) in a manner which would preserve a company's optimal investment level, but which would also increase expected tax revenue.

from the maturing state of the Province's resources.[108] There is the potential for little (or no benefit) to accrue to the government where resource development yields little revenue, to the extent that such a system is profit-oriented[109] (net-profit royalties may only yield higher expected revenue than *ad valorem* royalties for deposits with low uncertainty and relatively high profitability).[110] In addition, Garnuat and Clunies-Rose have identified administrative costs, exchange rate variations, changes in purchasing power, and delay and uncertainty, as several of the other problems which characterise the net-profit tax system.[111] The system is also prone to creating incentives for accounting gamesmanship.[112]

Alberta's conventional oil and gas fields are now maturing, hence the need to introduce enhanced recovery technologies to facilitate exploration and development. Other unconventional sources, such as oil sands, are also challenging in terms of technology and costly to produce. All these call for sufficient incentives to attract investors.[113] The current regime needs to be robust

[108] Fraser and Kingwell note that expected tax revenue can be increased by an investment-preserving RRT in the situation where extracting the resource deposit is expected to be relatively profitable. See: *ibid*.

[109] However, the provisions for some upfront 'floor' royalties will ensure an initial basic flow of government revenue, irrespective of a project's profitability.

[110] In terms of the Alberta oil sands, Bradley and Watkins rightly note that one petroleum resource for which exploration costs are minimal is oil sand. There is also a reasonable degree of homogeneity between oil sands projects and in situ extraction methods. The application of Resource Rent Tax-type schemes to these projects therefore pose fewer problems (see PG Brandley and GC Witkins, "Net Value Royalties: Practical Tool or Economic Illusion", (1987) 13:4 Resources Policy 279-288 at 282.

[111] See: R Garnaut & A Clunies-Rose, "Uncertainty, Risk Aversion and Taxation of Natural Resource Projects" (1975) 85 Economic Journal 282-287.

[112] Supra 56, at 25.

[113] The current fiscal framework largely reflects the maturing nature of Alberta's upstream industry and the marginality of similar future development. Maximising the greatest benefit, given the current position, is the major objective of the existing regime.

enough to accommodate both the maturing and shifting nature of the resources.[114] To secure a fair share of revenue over time from mineral wealth, the fiscal system must create sufficient incentives for companies to explore and invest.[115] This accounts for the different royalty regimes and incentive programmes. Furthermore, whether the Province is getting its fair share from the development of resources should not purely be measured by royalties, or through leases and taxes. It can be very misleading to focus solely on this portion of the total government takings. As CAPP and SEPAC rightly noted in their report to the Alberta Royalty Review Panel "the benefits are just more than royalties, leases sales and taxes. There are new jobs in technical, trades and professional fields, and in business opportunities to provide goods and services from pipelines and equipment to research, trucking, restaurants, environmental and accounting services".[116] All these contribute to Alberta's economic growth. The percentage take alone is not sufficient to judge the fairness of the value sharing.

Alberta runs a competitive bidding regime. Such a regime requires lower royalties to compensate for the high up-front cost incurred by investors at pre-production stage. The government cannot have it both ways, namely, loading up-front pre-production payments and increasing post-production payments. This will be a disincentive to investors and will have the negative effect of leaving the Province's mineral wealth relatively underdeveloped.

In their empirical study of the effect of royalty increases on bonus bids in Alberta, the C.D. Howe Institute observed that the average value of oil and gas

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[114] The regime recognises that amongst less productive wells in the mature conventional sector, there is simply not as much 'economic rent' available for collection, compared with the lower cost, but more productive wells.

[115] Given the state of the resources, the economic theory advocated is that the system must be designed to mobilise the drive, ingenuity and material resources of the private enterprisers by playing on their hopes of capturing some portion of the potential economic rent (Supra note 56 at 21 – 22).

[116] For a copy of the report, see: www.capp.ca.

bonus bids fell by 57 per cent in Alberta during the period of high royalty rates between October 2007 and March 2010.[117] In the 2005-2006 fiscal year, the government received $3,390 billion from bonuses, representing 24 per cent of total Provincial government revenue from non-renewable resources. Although the fiscal year 2006-2007 saw a drop in revenue from bonuses to $2,263 billion, which accounted for 20 per cent of non-renewable resource revenue, there was a significant decline in revenue from bonuses when the new royalty framework was implemented in 2009. In the 2007-2008 fiscal year, the government received $1,128 billion as revenue from bonuses, representing 10.2 per cent, at less than 50 per cent of the revenue collected during the previous period. This is believed to have been due to the anticipated implementation of the new royalty framework in 2009, which contributed to fewer hectares being sold, and a lower average price being paid per hectare. It was reported that there was a decline in the number of petroleum and natural gas mineral rights sold at auction, from 2,428,313 hectares in 2006-2007, to 1,664,559 hectares in 2007-2008.[118] In 2008-2009, revenue from bonuses demonstrated a significant drop to $1,112 billion. This represented 9.3 per cent of the total Provincial government revenue from non-renewable resources. Within these periods, conventional oil, natural gas and oil sands saw increases in royalties, illustrating the correlative relationship between bonuses and royalties.

Given the maturing and declining state of the Province's mineral wealth, the current regime is effective for both the government and investors. Nevertheless, there are constraints inhibiting the maximisation of revenue from the Province's mineral wealth. These are not necessarily related to the fiscal regime. Concern has been raised that if Canadian oil producers had access to

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[117] *Rethinking Royalty Rates: Why there is a Better way to Tax Oil and Gas Development*, online: C. D. Howe Institute Commentary < http://www.cdhowe.org/pdf/commentary_333.pdf >.

[118] See: 2007-2008 Annual Report of the Alberta Ministry of Energy, (Edmonton: Alberta Department of Energy, 2008) at 22.

markets in the United States and the Asia-Pacific region, they could secure the best possible return on their investment.[119] Alberta's market for its crude oil is almost entirely limited to the United States. This policy challenge has a significant impact on the revenue Alberta, and Canada as a whole, derive from crude oil exports. In most cases, Edmonton Light and Western Canadian Select, the price market used to determine netbacks to producers marketing crude oil in Canada, are relatively lower than West Texas Intermediate (WTI) crude oil, and far below the Brent (North Sea) crude prices. This denies the Province the revenue it could have ordinarily generated from the sale of its oil. It has been mentioned that Maya, a benchmark for heavy crude oil set in Mexico, similar in quality to Alberta's West Canada Select (WCS), has been increasing in price, compared to Alberta's heavy oil prices. This is because oil from Mexico has better access to international markets than Alberta.[120] As has been mentioned, resource rich countries take into account such specific constraints in favouring one fiscal arrangement over another. The Alberta fiscal regime may be effective, but access to the 'world market'[121] limits its potential to generate revenue. Expanding the Province's market for its oil is a policy decision worth exploring by the Provincial and Federal government. This is imperative given that Alberta's royalty regime is price sensitive.

This section has examined two core elements of Alberta's fiscal regime: the regime for the acquisition of mineral rights and participation through royalties. As the examination confirms, Alberta has an effective tenure-granting system and revenue generating arrangements. The fiscal regime is effective in capturing a fair

[119] See generally: Gerry Angevine and Vanadis Oviedo, *Ensuring Canadian Access to Oil Markets in the Asia –Pacific Region* Energy Policy (2012), online: <http://www.fraserinstitute.org/uploadedFiles/fraser-ca/Content/research-news/research/publications/ensuring-canadian-access-to-oil-markets-in-asia-pacific-region.pdf>.

[120] See: Alberta Energy, *Alberta's Heavy Oil Prices* (January 2013), online: <http://www.energy.alberta.ca/Org/pdfs/FSheavyOilPrices.pdf>.

[121] The 'world market' is used to refer to markets outside the United States.

share of the economic rent from the development of the Province's mineral resources. This makes it an ideal example for Ghana to study in order to see how best to adapt some of its provisions and modify or apply them in Ghana. The Province has made the most of its mineral wealth and the regime is transparent and predictable. It also rewards return on investment. Through the fiscal incentive packages, the government shares the risk of developing the Province's mineral wealth. However, periodic reviews of the fiscal regime in response to ever-changing circumstances in the mineral industry may be necessary. This will ensure appropriate risk sharing between the government and developers and also enable the government to retain a fair share of the economic rent. The caveat, however, in the words of Tussing, *supra*, is: "if it ain't broke, don't fix it and don't mess with the rules without a very good reason".[122]

The next section will evaluate how revenue generated from mineral development has been managed in the Province. The object is to identify some lessons Ghana can learn from in managing its petroleum revenue.

5. Managing the Oil Revenue

5.1 Introduction

Alberta is the richest Canadian Province as far as hydrocarbons are concerned, with abundant reserves in conventional oil, natural gas and oil sands. It is common knowledge that revenue accruing directly from oil[123] is finite; oil reserves are eventually exhausted. Over the years, the government has made it a policy to translate natural resource endowments from the Province into social and economic benefits for its current and future generations in a sustainable manner. It is in the light of this that the Alberta Heritage Savings Trust Fund was

[122] As the writer rightly notes, "an entrenched bad law that everyone has learned to live with might sometimes be less harmful than the uncertainty attendant on frequent reforms"(*supra* note 56 at 28).

[123] In the section, 'oil' is used to represent conventional oil, natural gas and oil sands.

established. The fund is intended to maximise returns on Alberta's finite resources for the people of Alberta, both now and in the future. How far this has been achieved remains to be seen. This section critically assesses the existing regime for managing oil revenue in the Province. The objective here is to evaluate how the Province has been able to manage its oil revenue under the Heritage Fund.

5.2 The Alberta Heritage Savings Trust Fund

The Alberta Heritage Savings Trust Fund was created in 1976 under the leadership of former Premier, Peter Lougheed.[124] The mission of the Fund was to offer prudent stewardship of savings from Alberta's non-renewable resources, by providing the greatest financial returns on those savings for current and future generations of Albertans.[125] It was thus an instrument to manage the government's share of royalties from oil and natural gas into the long term future of the Province. The main purposes were to save for a time when natural resource revenue would begin to decline and to reduce the volatility of the resource-based economy.[126] It was originally set to receive 30% of annual resource revenue, but that share would not remain dormant; it was to be invested in, among others, private ventures, and loans to other Provinces.[127] All these measures were aimed at growing the Fund.

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[124] The creation of the Fund was very much a political debate during the 1975 election. All in all, Albertans were to choose between spending the revenue boom from the resources and saving for the future. Some of the factors that entered into the decision to establish the Fund were: the principle of fairness for future generations; the goal of strengthening and diversifying the economy; the desire for improved quality of life and the value of having a 'rainy day fund' (see Allan A Warrack *Whither a Heritage Fund Public Dividend Policy*, online: Canada West Foundation (November 2007) < http://cwf.ca/pdf-docs/projects/ael-chapt-awarrack.pdf>.

[125] This is still the current mission of the Fund under the Alberta Heritage Savings Trust Fund Act, 2000.

[126] This was at the time of escalating oil prices and Alberta had its fair share of the oil boom.

[127] The Fund initially was composed of three divisions, and separately a cash and Marketable Securities Portfolio. Each of the division was to have a distinct objective. See in General, Allan A. Warrack and Russell R. Keddie, *Natural Resource Trust Funds: A comparison of Alberta and Alaska Resource Funds,* Western Centre for Economic Research Bulletin #72, University of Alberta, (September 2002) at 5-6.

Alberta started off with the right idea but failed to sustain it.[128] In 1987, the value of the Alberta Heritage Savings and Trust Fund stood at $12.7 billion. This was a remarkable achievement, given the global economic recessions of the 1980s and the oil price collapse.[129] The major successful initiatives of the Fund included the investment rescue of the Syncrude oil sands project and the establishment of an oil sands industry in Alberta.[130]

In 1987, deposits into the Fund were eliminated altogether[131] as the energy industry came to a standstill. Prices of petroleum products were slipping to a minimum level. The year was characterised by a massive budget deficit and transfers to the fund were suspended. The government's priority was looking at the immediate effect of the deficit, rather than the long term plan for the Fund. The oil revenue simply disappeared into the general budget and the core objectives of the Fund were abrogated. Moreover, successive governments showed little commitment to the Fund's objectives; deposits into it from mineral revenue did not resume until the 2005-2006 fiscal year[132] and then the income from the Fund was used for general government spending rather than for the purpose for which it was established.

The failure of the Fund can be linked to the policies that governed its inception in terms of management, structure and governance. In fact, it was bound to fail from birth. In terms of legislation, the government was given very broad discretion in the usage of the Fund. A government which is determined to spend

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[128] At the time of its establishment, it was one of a kind as a sovereign fund.

[129] Canada was hard hit by the recession of the early 1980s, with interest rates, unemployment, and inflation all escalating.

[130] See: Allan A Warrack's guest column: "Saving the 'savings' in the Alberta heritage fund", (August 2002) University of Alberta, Express News, at 15.

[131]This era marked the beginning of the end for the successful idea conceived by former premier, Peter Lougheed.

[132]See: Mark Milke, *Restoring Peter Lougheed's Original Vision: A 2008 Comparison of Alberta Heritage Savings Trust Fund and Alaska Permanent Fund* (Winnipeg: Frontier Center for Public Policy, 2008) at 7.

out of a Fund without a restraining legislative mechanism, will always have its way. Such a Fund will ultimately collapse. Quite simply, the Fund stumbled because there were few new deposits and most of the income from it was withdrawn. In addition to an inadequate regulatory framework limiting the discretion of the government, there was no independent oversight in terms of deposits and withdrawals from the Fund. In practice, it became a source of revenue available for the government to spend and was not severed from the overall government revenue structure. Efforts to save for the future failed because the temptation to consume was great. There was no financial discipline in terms of increasing the Fund and withdrawing from it. It has been stated that between 1977 and 2011, the Heritage Fund's cumulative net income was $31.3 billion. During the same period, the amount transferred out of the Fund to the government was $29.6 billion.[133]

The greatest difficulty for many resource rich countries that have adopted saving funds is how to design rules that preserve funds out of reach of general government revenue.[134] It is politically difficult to tell a government to put all revenue into a future fund and raise taxes instead, which will not be in the interests of the electorate or re-election. Without any legislative framework to either fetter the withdrawal or spending power of the government, there will be more incentives to withdraw than not. The success or otherwise of saving funds across the globe seems to be rooted in rules governing deposits into such funds and the

[133] Mark Milke, *Alberta Fritters away its trust fund* (Winnipeg Free Press (MB), March 9, 2013).

[134] Commenting on the difficulty inherent in a savings fund arrangement, Warrack succinctly notes the many implementation difficulties in a policy to defer benefits to the future. He writes that many individuals have trouble saving for their own future or for the family. It is far more difficult on a societal (government) basis. The future 'gain' is distant, diffuse and uncertain, but the current 'pain is immediate, specific and certain'. Although the economic principle of deferred benefits may be logical and socially just, the politics can be quite the opposite (Allan A Warrack "Alberta Heritage Fund: Blessing Becoming Curse?" Western Centre for Economic Research Bulletin #85, University of Alberta (November 2005) at 6.

way these are used. Where there is unfettered discretion to make withdrawals, such funds have mostly collapsed.[135] Making appropriate rules is one means of achieving the principal objective of setting up a fund. The success stories of many resource rich countries which have benefited from such measures are premised on a strong regulatory framework. Alaska, for example, uses both its constitution and a statutory framework for regulating the Alaska Permanent Fund.[136] In addition, the Fund is structured in the form of a corporation with a separate legal existence. These regulatory regimes generally take the fund out of reach of the government. They give governments limited discretion in terms of deposits into funds and the use of same.

5.3 Regulatory and Institutional Framework of the Alberta Heritage Savings Trust Fund

The Alberta Heritage Savings Trust Fund is currently regulated under the *Alberta Heritage Savings Trust Fund Act*, RSA 2000, c A-23 and in part, by the *Fiscal Management Act*, RSA 2013 c F-14.5. In terms of substance, the Alberta Heritage Savings Trust Fund Act, 2000 is not very different from its predecessors.[137] The mission of the Fund under the 1980 Act, which was "to provide prudent stewardship of the savings from Alberta's non-renewable resources by providing the greatest financial returns on those savings for current and future generations of Albertans", is continued under the current Act. Provisions are made under both the *Alberta Heritage Savings Trust Fund Act* and the *Fiscal Management Act* for the transfer of revenue from non-renewable resources into the Fund. However,

[135]Saskatchewan established the Saskatchewan Heritage Fund in 1978 to collect all non-renewable resource revenue. Within a few years, politicians began committing the Fund's money to Crown corporations and then siphoned money into general revenue. The Fund became quite pointless and was finally abolished in 1992.

[136] The Alaska fund was established in 1976, the same year as Alberta's Heritage Fund. The Fund's assets are worth $46.8 billion see <http://www.swfinstitute.org/fund-rankings/>.

[137] Alberta Heritage Savings Trust Fund Act, RSA 1980, c A-27.

there is no specific amount earmark for the Heritage Fund. Section 3 of the Fiscal Management Act gives discretion to the Treasury Board to determine which of the Funds listed under the section should receive the transfer, as well as the amount for the prescribed savings for a fiscal year.[138] The Heritage Fund Act has a 4 year investment and transfer plan from the years 2013 to 2017. The arrangement covers revenue that may be transferred from the Heritage Fund to the General Revenue Fund. There is a ceiling for fiscal years subsequent to the 2016-2017 fiscal year, when it is projected that the net income of the Heritage Fund will be maintained within it.[139]

Under the Act, the supervision of the Fund is under the direct responsibility of the Minister of Finance. The Act gives authority to the Minister to hold, manage, invest and dispose of the assets of the Heritage Fund in accordance with the Act.[140]

A standing committee is established under the Act. The functions of the committee are stated to include, (a) receiving and reviewing quarterly reports on the operation and results of the Heritage Fund; (b) approving the annual report on the Heritage Fund; (c) reviewing the performance of the Heritage Fund after each fiscal year and reporting to the Legislature as to whether the mission of the

[138] It is not certain why the government chose this path. Such a provision does not sit well with the intent to grow the Heritage Fund

[139] Section 8(4): the following regulations are set out for transfers of revenue from the Fund; (a) for the 2015-16 fiscal year, either 30% of the net income of the Heritage Fund, or the amount determined under section 11(2) of the Alberta Heritage Saving Trust Fund Act, whichever is greater, must be maintained in the Heritage Fund, (b) for the 2016-2017 fiscal year, either 50% of the net income of the Heritage Fund, or the amount determined under section 11(2) of the Alberta Heritage Saving Trust Fund Act, whichever is greater, or (c) for the 2017-2018 fiscal year and subsequent years, 100% of the net income of the Heritage Fund must be retained in the Heritage Fund (see section 4 of the Fiscal Management Act).

[140] This discretion was awarded to the Provincial Treasurer under the 1980 Act.

Heritage Fund is being fulfilled, and (d) holding public meetings with Albertans on the investment activities and results of the Heritage Fund.[141]

The Act also contains provisions dealing with issues, such as transfers of Access to the Future Fund, inflation proofing, and other transfers into the Fund, including transfers from legislative appropriation.[142] Quarterly and annual reports on operations of the Fund are required.[143] The Act gives regulatory authority to the Lieutenant Governor in Council to create regulations respecting any investment which may be made under the Act;[144] however, a review of the existing regulations will reveal that no such rules have or been made.

5.4 Assessment of Revenue Management Regime

An evaluation of the existing regulatory regime for the Fund will prove that the previously experienced causes of the failure of the Fund under the 1980 Act have not been addressed in the new Act. There is no clear-cut provision on the percentage of revenue expected to be deposited annually into the Fund.[145] Alberta is among the most favoured places on earth in terms of non-renewable natural resources, but it is still uncertain whether the Heritage Fund is meant for all non-renewable resources in the Province. Indeed, there is no specific definition of the revenue that will go into the Fund. For example, it is not clear whether non-renewable resource revenues include bonuses and land rental fees other than

[141] Section 6 of the Alberta Heritage Savings Trust Fund Act.

[142] Sections 9 to 11 of the Alberta Heritage Savings Trust Fund Act.

[143] Sections 15 and 16 of the Alberta Heritage Savings Trust Fund Act.

[144] Section 17 of the Alberta Heritage Savings Trust Fund Act.

[145] A combined reading of section 9 and section 3 of the Alberta Heritage Savings Trust Fund Act and the Fiscal Management Act, respectively, does not offer a clear picture. Under section 3(3) of the Fiscal Management Act the amount of prescribed savings for a fiscal year is to be transferred to one or more of the prescribed Funds, as determined by the Treasury Board. Thus, the section awards discretion to the Board as to which of the listed Funds the amount may be transferred into, including the Alberta Heritage Savings and Trust Fund. There is no specific legal requirement for transfer to the Fund as there is no rule stipulating how much money is to be deposited into the Heritage Fund each year.

royalties? There is a need for definition to provide for the scope of the transfers to be made into the Fund. This is one means of ensuring accountability. Given that revenue from the resources are put into different categories, a definition of what constitutes 'natural resource revenue' under the Act should be provided. It is obvious that Alberta cannot deposit 100 per cent of its non-renewable resource revenue into the Heritage Fund and that the amount of annual deposits into the Fund is an economic and policy decision for the government to make.[146] However, there must be statutory provisions subjecting the Fund to special deposit and spending rules. In a similar context, Peter Mackinnon has recommended an established, statutory investment mandate for Saskatchewan. It is anticipated that such a provision will provide clarity.[147] The law in Alberta provides no specific legal requirements for the percentage revenue which the government should contribute to the Fund; this gap in the law impedes realisation of Fund's mission.

A key reason for the failure of the 1980 Fund was the wide discretion that the government could exercise in relation to withdrawals. The Fund was characterised by the absence of a legislative framework to regulate and restrain raiding by politicians. Like its predecessor, the 2000 Act does not pay much attention to financial discipline. Section 8 and 11 of the Alberta Heritage Savings Trust Fund Act seem to provide for a certain amount of revenue to be retained in the Fund annually, but these provisions offer a vague position as to how much is expected to be retained. Unlike other jurisdictions, it does not make use of any percentage or figure which is to be retained to facilitate easy calculation. This

[146] For an overview of how much should be invested and its effect, see: Mark Milke, *Restoring Peter Lougheed's Original Vision: A 2008 Comparison of Alberta Heritage Savings Trust Fund and Alaska Permanent Fund* (Winnipeg: Frontier Center for Public Policy, 2008) at 25 to 27.

[147] See: Peter Mackinnon *A Future Fund for Saskatchewan: A report to Premier Brad Wall on the Saskatchewan Heritage Initiative* (2013) at 12. It is worthy of note that the 1980 Act provided for such a statutory investment mandate with specific rules as to how the revenue from the Fund should be invested.

gives room for manipulation by the government. Both in theory and practice, the Fund is regulated and managed at the whim of the government.

An equally important defect in the current regime is the institutional framework for regulating the Fund. Under the 1980 Act, the Provincial Treasurer was given the authority to hold, manage, invest and dispose of assets from the Heritage Fund, in accordance with the Act. This broad discretion was carried over to the 2000 Act, and the discretion is now given to the Finance Minister.[148] The Standing Committee under the 2000 Act is also just a carbon copy of the committee that existed under the 1980 Act.[149] This institutional arrangement does not put in place the right checks and balances necessary for the effective and sustainable management of the Fund. For example, in a situation where all the members of the Standing Committee were also members of the governing party, the purpose of the Committee would be defeated. This institutional arrangement allows the Fund to be operated in the domain of the governing party.

As far back as 1990, Mumey and Ostermann, commenting on the institutional arrangement relating to the Fund, noted that from the perspective of a legal entity or an administrative structure, the distinction between the Alberta Heritage Savings Trust Fund and the Alberta government is ambiguous. They argued that the Fund was actually owned by the government, and was increased or reduced at the discretion of Alberta legislature.[150] In effect, there was no independent oversight since the Fund was not severed from the government and neither was it separate from the government's executive and legislative branches. The lack of such independent oversight is a recipe for financial indiscipline in

[148] Section 2(1) Alberta Heritage Savings Trust Fund Act. It is worth knowing that the Minister here is the one determined under the Government Organization Act as the responsible Minister, namely the Provincial Treasurer.

[149] See section 6 of Alberta Heritage Savings Trust Fund Act, RSA 2000 and of Alberta Heritage Savings Trust Fund Act, RSA 1980.

[150] See: Glen Mumey and Joseph Ostermann, "Alberta Heritage Fund: Measuring Value and Achievement" (1990) 16:1 Canada Public Policy 29-50.

government spending.[151] The structure of the Fund management must conform to the concept of trust, and therefore managed by disinterested persons. From the perspective of legal personality and administrative structure, there must be a boundary between the government and the Fund. This would limit the extent of discretion the government could exercise in increasing or reducing the Fund. In Saskatchewan it has been recommended that a corporate body should be established under the laws of Saskatchewan for the management of its Future Fund. It is believed that a corporation will give effect to the Fund as an entity separate from the government, the internal organisation of which has the capacity to participate competitively in the wealth fund investment world.[152] It must, however, be mentioned that such a corporation will not achieve its purpose if it is left solely under the control of the government.

In sum, it is evident that the Alberta Heritage Savings Trust Fund has been a less successful initiative. The extensive discretionary powers given to the government under the Act for use of the Fund has been the most culpable cause of this unsuccessful story. Alberta could have managed the Fund to provide maximum financial returns for current and future generations. This could have been done through an appropriate legislative framework and self-discipline on the part of the government.[153] The government is therefore responsible for the Fund's success or failure and must not merely concern itself with generating revenue from resources. As was the case with the Royalty Review Panel, the government should form a body to re-visit the regulatory framework governing the Fund. There must be one comprehensive Act on all matters affecting the Fund. Indeed, recent amendments to the regulatory regime have not added anything new.

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[151] At present, the government is running a budget deficit because of excessive spending.

[152] See: Peter MacKinnon, *A Future Fund for Saskatchewan: A report to Premier Brad Wall on the Saskatchewan Heritage Initiative*, 2013 at 10. Alaska has in place an equal regime in terms of entity structure for its Permanent Fund.

[153] It is ironic that Alberta, which is one of the pioneers of the 'saving fund' may have to learn on this note from other relatively nascent beginners.

6. Conclusion

This chapter has assessed the fiscal regime in Alberta. In addition, the regulatory framework for managing the Province's mineral revenue has been considered. It is evident from this chapter that in terms of revenue generation, the Province has an effective system for generating revenue. The bonus system works well and the royalty regimes are efficient in securing for the government its fair share from mineral development. However, the same cannot be said of the way the mineral revenue generated is managed. In terms of the Alberta Heritage Savings Trust Fund, the Province has not been successful in managing the Fund. As observed, the failure of the Fund can mainly be attributed to the regulatory framework giving the government too much scope in how they use it.

The next chapter will examine the regime in Norway to determine how effectively the country has managed its oil revenue.

CHAPTER THREE: THE FISCAL REGIME AND MANAGING OIL REVENUE IN NORWAY

1. Introduction

This chapter will specifically focus on the fiscal regime established in Norway. As in Chapter Two, the chapter will examine the management of oil revenue. The chapter is organised into two sections. Section one will pay specific attention to the mode of acquiring mineral rights and the methods through which revenue accrues to the government from petroleum development. Attention will be given to some of the specific differences that exist between the fiscal regime in Norway and that of Alberta. Section Two will explore how oil revenue has been managed under the regime using the Petroleum Pension Fund. The objective is to determine how effectively the revenue from petroleum development has been managed using the Fund. The key is to isolate key components of the system that differentiate it from the regime used in managing petroleum revenue in Alberta under the Alberta Heritage Savings Trust Fund. This will provide the basis for assessing the regime in Ghana.

2. Petroleum Development in Norway

In Norway, just like in many other countries, the ownership of natural resources is vested in the state. In May 1963, the government proclaimed sovereignty over the Norwegian Continental Shelf.[1] The proclamation gave the government the right to regulate activities on the Shelf, including the exploration and production of petroleum activities. The State is the landowner and only the King (thus the government) can grant licences for exploration and production. Petroleum was discovered in the North Sea in 1969[2] and exploration and production activities

[1] Although this is in line with the provisions of the Continental Shelf Convention, adopted in 1958 under the auspices of the United Nations, this was done under customary international law.

[2] This began with the discovery of Ekofisk. Production from the field started on 15. June, 1971. Ekofisk is still one of the major productive oil fields. At present, there are 5

have gone through significant changes since production started in 1971. The petroleum[3] sector now constitutes the largest industry in the Norwegian economy, with the state receiving substantial income from petroleum activities.

Norway has an enviable record in managing her petroleum revenue. With an accumulated worth of $818 billion from such revenue,[4] Norway has been a model for petroleum rich countries when it comes to petroleum production and management.

3. The Acquisition of Production Rights

3.1 The Tenure System in Norway

No one may conduct petroleum activities in Norway without a licence, or the approval and consent of the state.[5] Norway's upstream petroleum activities are mostly concentrated offshore, as a result exploration and production activities are not affected by the land tenure system, visible in onshore petroleum-producing countries. The basic regulatory regime for the exploration and production of petroleum resources is governed by the *Petroleum Act of 29 November*, 1996 No. 72[6] and the Regulations under the Petroleum Act, created by Royal Decree on 27 June 1997. The Petroleum Act provides the legal and regulatory framework for the granting of licences for exploration and production. Exploration and production licences are mutually exclusive under the Act. The Norwegian licensing system is not based on auctions, but on a discretionary system and this

licensees producing petroleum from the field. Currently, there are about 76 fields in production on the Norwegian Continental shelf (see www.npd.no/en/Publication/Facts/Facts-2013).

[3] In this section, 'petroleum' is used to refer to both conventional oil and natural gas.

[4]See: Largest Sovereign Wealth Funds by Assets under Management, <http://www.swfinstitute.org/fund-rankings/>.

[5] Section 1-3 of the Act of 29 November 1996 No. 72, relating to petroleum activities.

[6] The Petroleum Act, 1996 repealed the Act of 22 March No. 11, relating to petroleum activities.

is therefore significantly different from the tenure-granting system used in Alberta.

Under the tenure-granting system, the Minister[7] must open up an area for petroleum activities before an exploration or production licence may be awarded.[8] An exploration licence is granted to a corporate body, or may be granted to a physical person domiciled in a state of the European Economic Area (EEA). The licence will be in the form of a reconnaissance licence, which entitles the licensee to carry out seismic, petrophysical, geophysical, geochemical, geotechnical and other surveys, for the purpose of locating petroleum deposits. In respect of an exploration license, a fee amounting to NOK 65000 per calendar year is paid in advance to the state via the Norwegian Petroleum Directorate.[9] The licence will not grant the exclusive right to explore in those areas covered in the licence, or any preferential right when production licences are granted.[10] Production licences may be granted to others, or another licence may be granted for areas covered by exploration licences. The process is highly dependent on prospective extractors being willing to undertake the commercial risk of exploration with no certainty that they will be able to eventually develop the mineral and thus reduce the cost of exploration.[11] This regime differs from other systems, where the granting of an

[7] The Minister of Petroleum and Energy.

[8] A strategic impact assessment is carried out in the area, which will cover the economic, environmental and social effect of such activities. The impact assessment and opening of new areas is regulated under Chapter 3 of the Petroleum Act and Chapter 2a of the Petroleum Regulations.

[9] Section 5 of the Petroleum Regulation.

[10] See section 2-1 of the Petroleum Act. The Petroleum Regulation to the Act requires the licensee to send the data, registration and results of the activity to the Norwegian Petroleum Directorate, after completion of the activities pursuant to the licence. This requirement similarly applies to surveys conducted pursuant to a production licence. The policy rationale is the government's involvement in the petroleum activities. Unlike in Alberta, where such information is used as a guide by the government to determine the reserved price, in Norway, such information serves as a guide for the government to decide on state participation interests.

[11] For a complete discussion on why an investor may take on such exploration, see: Ursula M H Kretzer, "Exploration Prior to Oil Lease Allocation: A Comparison of Auction

exploration licence gives the licensee the exclusive right to apply for a production licence over the licenced area, or to convert the exploration licence to a production licence. In terms of duration, the licence is granted for a period of 3 calendar years, unless another period of time is stipulated. An investor must acquire a production licence in order to be permitted to undertake production activities.

Before awarding a production licence, the Ministry of Petroleum and Energy announces licensing rounds.[12] An application is made to the Ministry with a copy to the Norwegian Petroleum Directorate.[13] The licences are granted on the basis of, (a) the technical competence and financial capacity of the applicant, and (b) the applicant's plan for exploration and production in the area for which a production license is sought.[14] This is purely an administrative process and it differs from the bidding system used in Alberta. The condition for granting the licence is based solely on the need to ensure that the petroleum activities within the area covered by the production licence are carried out in a proper manner.[15]

Licensing and Allocation Based on size of Work Programme" (1994) 20:4 Resource Policy at 235-246.

[12] In addition to this ordinary system of awarding licences, the Government has introduced the annual system of Awards in Predefined Areas (APA) in matured parts of the Norwegian Continental Shelf (see: www.npd.no/en/Topics/Production-licences/Theme-articles/Licences-rounds).

[13] For the handling of an application for a production licence, a recommended fee is paid to the state via the Norwegian Petroleum Directorate. The payment and acceptance of the fee constitute evidence that the application has been received.

[14] Section 10 of the Regulation to the Act.

[15] This provision seems to deviate from the regime under the 1985 Act, under which, as a condition of granting a production licence, the authorities may require state participation. Such participation has been customary since 1969 through so-called state participation agreements. However, this requirement seems to be moot since the state has virtually direct interest in all oil producing companies. In addition, under the Petroleum Act and the Regulation to the Act, the King may decide that the state should participate in petroleum activities when a licence is issued. For a brilliant exposition of the regime as practiced under the 1985 Act, see Peter Cameron, "North Sea Oil Licencing: Comparisons and Contrast" (1984-1985) 4 Oil & Gas L. Rev. 99-106. See also: Hans Jacob Bull "Norwegian offshore Petroleum: The legal and Administrative Response," (1981) 25 Scandinavian Stud. L. 31.

The production licence document supplements the provisions of the Petroleum Act and specifies detailed terms for each licence.[16]

Unlike an exploration licence, a production licence is granted to a corporation established under Norwegian legislation. Petroleum licences are usually awarded to Norwegian bidders when they have proven themselves to be competitive in terms of financial capacity, technical competence, and the overall work programme commitment. Some deem this to be a privilege for Norwegian companies. The view is that Norwegian petroleum companies - Statoil, Norsk Hydro Produksjon and Saga Petroleum - have achieved more and bigger shares than those expected to follow from their competence at the time of the award.[17] This has helped in promoting the establishment of local oil companies. Production licences may also be granted to a person domiciled in a state of the European Economic Area (EEA) and are awarded on the basis of factual and objective criteria according to work commitment programmes submitted by applicants. Prior to the granting of a production licence, licensees in adjacent areas are given an opportunity to apply for a production licence in those areas.[18]

The production licence will give the licensee an exclusive right to exploration, exploratory drilling and the processing of petroleum deposits in delimited areas (blocks) of the Continental Shelf. Although a production licence grants to the owner the exclusive right to explore and produce, it does not preclude the granting of permission to others to explore the possibilities for and production of natural resources other than petroleum resources. A licensee cannot oppose the laying of pipelines, cables or wires of various kinds, or the placing of other

[16] Unlike the Petroleum Act, which is of general application, the licence regulates the activities of each individual producer and also the relationship between the individual producer and the state.

[17] For an exposition on this, see: Mette Thorsen and Finn Arnesen, "Offshore Licence in Norway: a Privilege for Norwegian Companies" (1995) 13 Energy and Natural Resources L 258.

[18] Sections 3-5 of the Petroleum Act.

facilities on, in, or above the area covered by the production licence.[19] The condition precedent is the fact that such activities do not cause unreasonable inconvenience to the petroleum activities. This is a recognition of the existence of equally important natural resources from which the state may benefit. Through this regulation, the Norwegian marine industry, for example, is not greatly affected by petroleum development. Thus, in terms of rights to an area, the petroleum production licence may co-exist with other licences granting rights to other natural resources in the licenced area. In addition, there are no upfront payments for production licence awards. The licensee becomes the owner of his proportionate share of the petroleum produced.[20] The production licence is for a period of 10 years.[21] A licensee who has fulfilled the work programme can apply for an extension after the expiration of the licence.

3.2 Assessment of the Tenure System in Norway

Compared to Alberta, the tenure-granting system in Norway is less effective from the point of view of economic theory. From the economic theory perspective, the discretionary system may not be the best method of disposing of natural resource in the public sector. Tussing has stated that "the discretionary method fritters away potential revenue that the government might have harmlessly appropriated and tends to fragment and immobilise resource rights, leaving them under the control of parties who cannot, or may not even want to develop them".[22] This is mostly

[19] This is similar to the system in Alberta where the oil company must co-exist with, example, hunting and agriculture and those who hold forestry or grazing licence.

[20] See sections 3-3 of the Petroleum Act.

[21] Sections 3-9 of the Petroleum Act. As a general rule, the extension may be up to 30 years, but may also be up to 50 years in some situations. There are provisions on relinquishment and surrender during the period of the licence. See generally: sections 3-14 and 3-15 of the Petroleum Act.

[22] See: Arlon R Tussing, *An Economic overview of Resource Disposition Systems* in Nigel Bankes and J Owen Saunders *Public Dispositions of Natural Resources* (Canadian Institute of Research Law, 1994) at 22-23 See also: Kenneth W Dam, "Oil Resources: Who Gets What How?" (1976) 31:1 Journal of International Affairs 153-155.

the case where investors acquire interests for the purpose of speculation. The system is also more demanding and places a heavy administrative burden on the state. Lack of transparency and the possibility of corrupt practices are other weaknesses of the discretionary/administrative method of resource disposition. However, the discretionary system practised in Norway may be an exception to this weakness. The system has worked well for Norway over the years; it has enabled the government to achieve many of its policy objectives, such as promoting the establishment of local oil companies. It has also enabled the government to retain maximum control in the development and production of the country's resources. Success in the application of a preference method for disposing of natural resources may be attributed to measures put in place to curtail the negative effect of such a method, e.g. relinquishment and surrender provisions, which are also to be found in an auction system. Moreover, the decision makers (the Minister and the Norwegian Petroleum Directorate) appear to be more sophisticated with respect to evaluating work-programme bids.

4. Elements of the Government Share from Petroleum Revenue

4.1 Sources of Revenue

The Norwegian fiscal regime has changed considerably over the years. As with various licencing regimes, royalties initially played a prominent role in the total government portion. They provided an early income to the state and were easy to administer. However, the royalty system was abolished in 2006. Tore Eriksen, Secretary General to the Ministry of Finance explained that at the time, there were some doubts about the potential to establish an effective tax system and effective tax administration. Royalties were thus an easy and dependable source of revenue for the government.[23] Currently, the government participates in a share of the economic rent from the exploration and production of petroleum through area

[23] See: Tore Eriksen The Norwegian Petroleum Sector and the Government Pension Fund-Global, June 2006, at 20.

fees, CO_2 tax, the State Direct Financial Interest (SDFI), corporate income tax and special petroleum tax.

4.1.1 Area Fees

Sections 39 to 42 of the Petroleum Regulation govern the rules applicable to area fees in the state. The area fee is paid after the expiration of the term stipulated under the Petroleum Act. The fee is paid in advance for each year after the expiry of the term provided under the production licence, pursuant to the Petroleum Act. Given that it is a steeply escalating sliding scale, it may be considered as equivalent to a relinquishment provision.[24] The policy rationale behind the fee is intended to encourage returns from acreage that companies no longer wish to explore. The Norwegian Petroleum Directorate is the body responsible for the regulation and collection of the fee. Although the fee contributes to total government takings, it is insignificant compared to the amount the country derives from taxes and the State Direct Financial Interest. Pursuant to section 39(5) of the Petroleum Regulations, the Norwegian Petroleum Directorate (NDP) has stipulated an increase in area fee rates, to be applied as from 1 January, 2014.[25]

4.1.2 CO_2 Tax

The CO_2 tax is regulated under Act 21,[26] which imposes a tax on the discharge of CO_2 from petroleum activities on the Continental Shelf. The tax is paid to the Treasury on the burning of petroleum and discharge of natural gas, in connection with petroleum activities on the Continental Shelf. The principal objective behind the introduction of the tax is to reduce CO_2 emissions from petroleum activities. Together with the area fee tax, it constitutes a relatively low percentage of government takings from the petroleum industry. However, the tax is significant

[24] See: Kameel IF Khan, "Petroleum Taxation and Contracts in the Third World – A Law and Policy Perspective" (1988) 22 J. World Trade 67 at 72.

[25] http://www.npd.no/en/news/news/2013/area-fees--stipulation-of-new-rates/.

[26] December 1990, no. 72.

from the perspective of the state and the wider global sphere, given the global fight against the discharge and emission of CO_2 from petroleum activities.

4.1.3 State Direct Financial Interest

The state has a direct interest in many oil and gas fields on the Continental Shelf. This state interest is regulated by statute under the Petroleum Act and the Regulations of the Petroleum Act. Each interest is decided when licences are awarded. The state pays its share of investment costs, and receives a share of the gross income, proportionate to interest. This differs from the ordinary 'carried interest' in production sharing contracts or concessions, where the interest is held by the state, but the contractor pays for the conducting of petroleum operations, without any reimbursement from the state. Here, the state is highly exposed to the economic development of the sector and bears equal risk with contractors in the industry.[27] Through the exploration data submitted to the state under the Petroleum Act and the Regulations of the Act, the government has immediate access to information on profitable projects and invests accordingly. The government thus has the upper hand in its negotiations with private investors. Where profitability is estimated to be low, the state can decide to take a small share, or even no share, while a larger share would be appropriated for more profitable projects. The State Direct Financial Interest is an important instrument to maximise government benefits from the exploration and development of petroleum.

4.1.4 Corporate Income Tax and Special Petroleum Tax

Taxes and the SDFI combined are the most important instruments and constitute the major part of total government takings.[28] Apart from the CO_2 tax, Norwegian

[27] For a general overview of the rules and the extent of state participation, see chapter 11 and section 12 of the Petroleum Act and the Petroleum Regulation, respectively.

[28] Cash flow from petroleum tax and Petoro/State Direct Financial Interest accounted for approximately 99 % of total reported cash flow in 2011 (see:

petroleum activities are subject to two tax regimes, the ordinary corporate income tax and a special petroleum tax.

Company profits are taxed as ordinary income[29] and at a flat rate. Before the fiscal year, 2014, corporate income tax was rated at 28 per cent of ordinary income. In the current fiscal year, the rate of corporate tax is 27 per cent.[30] Although petroleum companies are subject to the same tax rate, different rules exist under the Tax Act and the *Petroleum Tax Act* as regards permissible deductions, in order to arrive at the taxable net income of the company. This is in recognition of the peculiar nature of the petroleum industry. All relevant expenses can be deducted to arrive at taxable income under the Petroleum Act.

The special tax regime applicable to the petroleum industry is regulated under the *Petroleum Taxation Act*.[31] The Special tax is calculated at the rate agreed upon by Parliament, the Storting, for each year.[32] Currently, the rate is 50% of the adjusted net income after corporate tax and permitted deductions. Gross revenue from oil production and the value of lifted stocks of oil are determined on the basis of norm price[33] (the norm price will reduce the risk of the government

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http://www.regjeringen.no/upload/OED/pdf%20filer/EITI/1269981599_670670_EITIrapport_2012_engelsk.pdf).

[29] The ordinary income of corporations is defined as total revenue, minus all expenses in the food business, including tax depreciation.

[30]http://www.regjeringen.no/en/dep/fin/press-center/press-releases/2013/the-governments-tax-programme-for-2014. Norway has had the 20% rate for almost 20 years. The new reduction is deemed as a bid to stimulate investment and maintain competiveness globally.

[31] The Act of 13 June, 1975, No. 35 relating to the Taxation of Subsea Petroleum Deposits, etc. The Act governs the taxation on the exploration for and extraction of subsea petroleum deposits, and any activities or work relating thereto: hereunder the pipeline transportation of extracted petroleum.

[32] Section 5 of the Petroleum Act.

[33] The Petroleum Tax Act states that the norm prices shall correspond to the prices that could have been obtained in a sale of petroleum between independent parties in a free market. When stipulating norm prices, the Petroleum Price Board takes a number

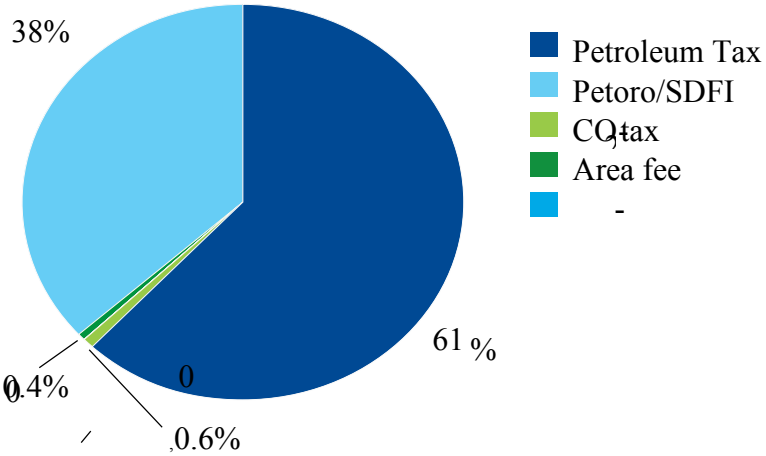
losing potential revenue if the company developing the project is a 'price-taker' when selling the mineral).

The Act allows for various deductions in recognition of the financial requirements of petroleum industries. Expenses incurred in acquiring pipeline and production facilities, including the installations which form part of them, or are related to such facilities, may depreciate at a fixed rate from time to time. Losses incurred are also permitted deductions under the Act. These provisions are part of cost recovery incentives. Deductions are not granted with respect to sales commission, discount, or costs upon the transfer of petroleum between businesses in a permanent relationship[34] with each other.

of factors into consideration, including spot market prices and contract prices in the industry (see generally, section 4).

[34] A company is in a permanent business relationship if it qualifies under the provisions of section 3(e) a-b.

Figure 1: The relative size of the various revenue streams in 2012.



Source: Norway Extractive Industries Transparency Initiative <http://www.regjeringen.no/upload/OED/Rapporter/2012_Eiti_petroleumsrapport_engelsk_elektronisk.pdf> (emphasis added).

As the above Figure illustrates, petroleum taxes and the State Direct Financial Interest combined accounted for more than 99% of the overall revenue from petroleum in 2012.

4.2 Assessment of Revenue Sources

Norway's fiscal regime is regulated by statute. Unlike in Alberta, there are limited circumstances where discretionary powers are granted to public officers. In most cases where discretion is needed, it is limited to the tenure granting system and fixing the size of the State's interest. As the government's revenue generation provisions are defined by statute, there are few instances where tax provisions may be altered by the Ministry. A reduction in government revenue, such as cost deduction, is defined under the Tax Act. This creates uniformity and standardisation in the system.

The petroleum tax system in Norway shares some features with the net profit system or rent-based system, through which costs are deductible in some form by determining the royalty base. A crucial factor for the success of such a

regime is efficient tax administration and the stability of the system over time.[35] In situations where governments have very little information about cost, such a system benefits the producers. Since the government is a key player in the industry, access to information is not a serious problem. The state thus acts both as a producer and regulator. Aside from state participation, the Petroleum Act and Petroleum Regulation also establish a mandatory system of information reporting with regard to petroleum activities. To a very large extent, this contributes to the smooth administration of the tax system used under the regime.

The system has fulfilled its primary purpose over time of securing revenue for the government. It is designed to ensure a safe and profitable way of exploiting petroleum resources and ensuring that the bulk of petroleum revenue accrues to the state. The tax system has greatly influenced the petroleum industry's long-term sustainability.[36] It is more generous and favourable for oil companies, encouraging the expansion of investment at a marginal stage of production. The government has also encouraged new companies to enter the industry through the loss provisions carried forward under tax regulations. The system is more risk absorbing than royalties, which are mostly paid as soon as production commences. Another key feature attributed to the sustainability of the tax regime, as it exists in Norway, is its neutrality.[37] The system is neutral with respect to investment decisions, since only revenue in excess of costs is subject to tax.[38] Nellor holds

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[35] Investors' main concerns over such a regime are stability and predictability.

[36] Such adoption may be linked to the policy rationale of the Norwegian government. In Norway, it is the policy of the government to promote indigenous companies' involvement in the petroleum industry. The system ensures the sustainability of the companies.

[37]In a different but related context, see: Carole Nakhle, *Petroleum Taxation: A Critical Evaluation with Special Application to the UK Continental Shelf*, online: School of Human Sciences, University of Surrey< http://epubs.surrey.ac.uk/2790/1/410990.pdf> for an excellent comparative work with a robust critique on the UK royalty regime, as it existed under the Oil Taxation Act of 1975 and the current regime of Profit Revenue Tax.

[38] Mintz and Chen argue that the profit-based system is an appropriate way to collect rents, while minimising economic distortion. See: Jack Mintz and Duanjie Chen, *Capturing Economic Rents from Resources through Royalties and Taxes*, online: The

the position that the profit-based system enhances contractual stability because it automatically provides additional revenue for highly profitable projects. He is, however, of the opinion that the profit-based system cannot be neutral with respect to decisions over exploration, because investors know they will be taxed on highly successful projects, whereas unsuccessful projects will be unaffected.[39] A neutral tax system is one that does not change marginal decisions about investment, production, or trade that would have been made in the absence of the tax.[40] The net tax system allows for an equitable sharing of risk between the government and the petroleum companies.

As has already been mentioned, section 3 of the *Petroleum Tax Act* allows losses incurred to be deducted from income, or carried forward with the respective interest added.[41] Nellor rightly notes that such a system is a high-risk measure for the government to gain returns on resource ownership; although revenue could be realised in favourable circumstances, there is also a significant chance that resource development will yield a low return.[42] It is therefore an ideal system for highly profitable projects. Given the extent of government participation in the petroleum industry and the fact that the policy rationale encourages local production, the profit based system is well positioned in the current regime. The tax system has been stable over a great many years with relatively few amendments. From 1992 to 2013, there has not been any significant change in the

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School of Public Policy <. http://www.eisourcebook.org/cms/Canada,%20Capturing%20Economic%20Rents%20from%20Resources%20through%20Royalties%20&%20Taxes.pdf>.

[39] See generally: D Nellor, "Taxation of Minerals and Petroleum Resources" in the Tax Policy Handbook (International Monetary Fund, 1995) for a discussion on the merits of the profit-based system and other fiscal instruments.

[40]See: Philip Daniel, "Evaluating Fiscal Regime for Resource Projects: An Example from Oil Development," in the Taxation of Petroleum and Minerals: Principles, Problems and Practice (Routledge Exploration in Environmental Economics), May 2010, at 9.

[41] The allowable interest is to preserve the value of the deduction as if all were deducted in the previous year.

[42] See *supra*, note 39.

tax rate for either corporate income tax or the special petroleum tax, thus providing stability and predictability for operating companies.[43]

As Ola Barten, Minister of Petroleum and Energy, rightly concludes, predictability and transparency are important for the companies involved in the petroleum industry. Therefore, even with a relatively high total portion to the government, Norway is competitive, due to its stable framework conditions.[44]

5. Managing Oil Revenue

5.1 Introduction

Norway's management of its petroleum, particularly relating to the management of petroleum revenue, has been recommended for many resource rich countries. The country is a rare exception, having surprisingly escaped the resource curse[45]

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[43] The 28% corporate tax rate and the 50% petroleum tax rate have been in existence since 1992. This was at the time major reforms of the general tax system were enacted. The general tax rate was reduced from in excess of 50% to 28%, necessitating certain changes in the petroleum tax system. The petroleum tax rate was accordingly adjusted from 30% to 50%. See generally: Jan Jansen and Joachim Bjerke, *Norwegian Petroleum Tax,* online: BA-HR < www.bahr.no/en/about-ba-hr/news/_attachment/2869?_...true> for a historical and introductory account of the Norwegian tax system.

[44] Ola Borton Moe, "The Norwegian Model: Evaluation, Performance and Benefits": speech at "The Norwegian Experience in Oil and Gas Sector Seminar" in Mexico, May 2013. Transparency in payment flow and good governance are universal principles with which Norway already complies. Still, Norway has chosen to implement the EITI, hoping that other countries, where the need to introduce transparency criteria is greater, will be motivated and influenced to do the same (see http://www.regjeringen.no/en/sub/eiti---extractive-industries-tranparency/les-mer/norway-and-eiti.html?id=634673).

[45] The resource curse phenomenon implies that abundant mineral resources in some countries have become a 'curse' rather than a blessing, as the supposed wealth (revenue) generated from these resources does not translate into what is expected to be a good standard of living, development, or a generally healthy economy. In general, the resource curse theory has three interconnected dimensions – one is slower economic growth (the economic dimension), the second is violent civil conflict (the social dimension), and the third is an undemocratic or autocratic system of government (the political dimension). The scholarship on this phenomenon is extensive; see generally: Christa N Brunnschweiler & Erwin H Bulte, "Natural Resources and Violent Conflict: Resource Abundance, Dependence, and the Onset of Civil Wars" (2009) 61 Oxford Economic Papers 651; Christa N Brunnschweiler & Erwin H Bulte, "The Resource Curse Revisited

that has afflicted so many other resource rich countries. Norway's petroleum resource has actually been transformed into a long term fortune for the benefit of all Norwegians. This enviable success may be attributed to the mechanisms put in place to regulate the management of petroleum revenue. Both in statutes and in institutional arrangements, the country has put in place strict, accountable and transparent measures, which see that revenue generated from petroleum activities are well-managed for the benefit of all Norwegians.

5.2 The Government Pension Fund

The Government Pension Fund (formally, the Norwegian Petroleum Fund),[46] is an all-in-one body for the management of all revenue accrued to the government from petroleum activities. The Government Petroleum Fund was first established in 1990 under the *Government Petroleum Fund Act* of June 22, 1990, No. 36.[47] The purpose of the Fund is to facilitate government savings to finance rising public pension expenditure and support long-term objectives in the spending of

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and Revised: A Tale of Paradoxes and Red Herrings" (2008) 55 Journal of Environmental Economics & Management 248; Terry Lynn Karl, *The Paradox of Plenty: Oil Boom and Petro-States* (Berkeley, CA: University of California Press, 1997); Michael Ross, *The Natural Resource Curse: How Wealth Can Make You Poor* in Ian Bannon & Paul Collier, eds, *Natural Resources and Violent Conflict: Options and Actions* (Washington, D.C.: The World Bank, 2003) at 17; Michael L Ross, "The Political Economy of the Resource Curse" (1999) 51 World Politics 297.

[46]The Fund is established under the Government Pension Fund Act (No. 123 of 21 December, 2005). Currently, there are two subsisting funds under the Government Pension Fund: the Government Pension Fund Global and the Government Pension Fund Norway. The Government Pension Fund Global is deposited in an account at Norges Bank and the Government Pension Fund Norway is deposited with Folketrygdfondet.

[47] The establishment of the Fund was a broad political agreement to save revenue from petroleum activities by investing them abroad. The purpose was to shield the Norwegian economy from overheating and from the 'Dutch disease' and to ensure that increasing oil revenue will not lead to a corresponding increase in the spending of oil income. Other purposes include saving for future generations and to provide a fiscal buffer for 'rainy days'; see: Tom A Fearnley, *Norway: From oil and gas to the Government Pension Fund*, 2012. See also: Steiner Holden, "Avoiding the Resource Cruse the Case Norway" (2013) 63 Energy Policy at 870-876.

government petroleum revenue.[48] The first transfer to the Petroleum Fund was made in 1996.[49] Since then, the Fund has received a steady flow of income in accordance with the Act and subsequent regulations. It has grown into one of the world's most independent and substantial funds in terms of assets and wealth.[50] Norway has used its Petroleum Fund to address problems associated with the volatility and unpredictability of oil revenue and to balance current outlay with future spending.[51] This is remarkable, given that studies have demonstrated an inverse relationship between resource abundance and economic growth.

This enviable story has been attributed to a number of factors. Larsen for example, explains that "deliberate macroeconomic policy, the arrangement of political and economic institutions, a strong judicial system, and social norms contributed to let Norway escape the resource curse and the Dutch disease".[52] In addition to this, an efficient regulatory framework, transparency and accountability, good governance and institutional quality have formed a major part of this successful story.

The *Petroleum Fund Act* defines the Fund's income as the government's net cash flow from petroleum activities and the returns on Fund capital and net

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[48] The Government Pension Fund: <http://www.regjeringen.no/en/dep/fin/Selected-topics/the-government-pension-fund.html?id=1441>.

[49] In the first half of the 1990s, there were budget deficits due to recession. It was only in 1995 that the budget was back to surplus and the first transfer to the Fund was made in 1996 for the fiscal year, 1995. See: Tore Eriksen, *The Norwegian Petroleum Sector and the Government Pension Fund-Global*, online: <http://www.regjeringen.no/upload/FIN/Statens%20pensjonsfond/The_Norwegian_Petroleum_Sector_te.pdf> at 7.

[50] The overall value of the Government Pension Fund was NOK 3,961 billion at the end of 2012; an increase in value of NOK 520 billion from the beginning of that year (http://www.regjeringen.no/nb/dep/fin/dok/regpubl/stmeld/2012-2013/).

[51] It has also avoided (to a point) creating a petro currency by investing in other currencies and countries.

[52] E R Larsen, "Escaping the Resource Curse and the Dutch Disease: When and Why Norway Caught up with and Forged Ahead of its Neighbors" (2006) 65:3 American Journal of Economics and Sociology 605.

results of financial transactions associated with petroleum activities. This gives an elaborate account of the constituents of 'cash flow from petroleum activities' and the expenses which may be deducted from the total sum. It provides a clear picture of revenue flow into the Fund.[53] The provision is helpful in determining what constitutes petroleum revenue under the Act. There is no discretion as regards the revenue to be transferred into the Fund and the Ministry of Finance has responsibility for its management.[54] In addition to the Petroleum Fund Act in 2001, fiscal spending rules were introduced to supplement the Fund's regulations.[55] Although, in principle, these were not statutory restrictions which could bind subsequent governments, the spending rules have received broad political support and have in fact been observed by successive governments.

The fiscal policy relating to the Fund has since been within the guidelines. Successive government policies have been based on the long-term management of petroleum wealth. These guidelines serve as formal rules that provide limits on the use of petroleum revenue.

The Fund is seen as a fiscal management tool to ensure transparency in the use of petroleum revenue. The regulatory framework, together with the fiscal spending rules ensures that most of the petroleum revenue is saved in the Fund, from which only the expected real return of 4 per cent is used to cover the non-

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[53] See generally, section 3 for an overview of the itemised constituents of the cash flow and expenses allowed to be deducted.

[54] Section 2 of the Act. The Act grants regulatory authority to the Minister under section 7.

[55] See Report no. 29 to the Storting (2000-2001) <http://www.regjeringen.no/upload/kilde/fin/red/2005/0013/ddd/pdfv/260472-pmk_rap.pdf> Steiner states that the design of the fiscal rule had two objectives, namely to avoid procyclical fiscal policy and to mitigate adjustment costs when spending oil revenue increases. The fiscal rules are as follows: (a) The entire nest cash flow from the petroleum sector should be transferred to the Petroleum Fund (now the Pension Fund; (b) The Pension Fund should be invested in a diversified portfolio abroad, and (c) each year, the expected real return from the Pension Fund should be transferred back to cover the non-oil structural budget deficit on government budget (Steiner Holden, "Avoiding the Resource Curse: the Case Norway" (2013) 63 Energy Policy at 870-876).

petroleum budget deficit.[56] This is a provision used in managing and restraining government spending. The Act is specific to the types of cash flow that must be saved in the Fund and the expenses permitted from it. It constitutes a statutory requirement which fetters the government's discretion not to save into the Fund. Norway's Petroleum Fund Act is drafted very simply, but has provisions which provide the right checks to verify that revenue from petroleum development is channelled into the Fund. It even removes complexity from the determination of what constitutes petroleum revenue. As discussed, the success of petroleum funds across the globe seem to be rooted in the rules governing the Fund. Legislation may be formulated in different ways, but an important aspect is the actual existence of rules. Channeling money into a fund does not control spending. There are often difficulties in abiding by the rules from the political perspective. Success will therefore depend on design, the commitment of governments to fiscal discipline, and overall institutional quality.

One contributing factor to Norway's success story in the management of its petroleum revenue is good governance and the quality of the political institutions. There is a commitment to managing resources which reflects the view among Norwegians that natural resources belong to the nation and that their development should benefit both society as a whole and future generations. The Fund is one tool of self-control imposed by fiscal actors upon themselves. The introduction of the fiscal spending rules by government confirms the rule governance plays in the effective management of natural resource revenue. Although section 5 of the Petroleum Fund Act[57] seems to provide restrictions as to how the Fund's capital may be used, the restriction imposed by the Act is weak. In principle, the Act does not place any limitation on how much may be

[56] Saving into the Fund is made transparent by the reporting system put in place by the government.

[57] Section 5 provides that "the capital of the Government Pension Fund may only be used for transfers to the central government budget, pursuant to a resolution by the Storting (the Norwegian Parliament)".

transferred to the central government budget, pursuant to a resolution by the Storting. This is one weakness of the Act which seems to give discretion to the government to use savings in the Fund.[58] However, in 2001, the Social Democratic government headed by Jens Stoltenberg introduced fiscal spending rules which have become more of a statutory policy than an executive policy aspiration. The fiscal spending rules have introduced additional restrictions on the usages of the Fund's revenue. The Petroleum Fund Act and spending guidelines for petroleum revenue, together with monetary policy regulations have ensured financial discipline in the system. Norway may be one of the few countries which has effectively managed its petroleum revenue, despite a relatively weak regulatory framework.[59] It is, however, doubtful if this approach will be of any benefit to other resource rich countries. The failure of Alberta's Heritage Fund is an example of the adverse effect of a weak regulatory framework on the growth of a resource fund.

In addition to good governance, there is the role of institutional quality in the growth of the Fund and the Norwegian economy in general. Effective political institutions alone can explain a great deal of differences in the economic development in resource rich countries. Where weak institutions exist, resource profits are spent on government consumption rather than on investment.[60] As Stevens and Dietsche have noted, institutional quality plays an important role in explaining the role of natural resources upon growth and development. Effective institutions serve as devices that connect the otherwise negative linkage between

[58] It must be stated that the right checks and balances are put in place since the transfer can only be made pursuant to a resolution by the Parliament. The government is not given wide discretion in its decision.

[59] This explains the importance of good governance and sensible policies in the management of resource funds.

[60] G Atkinson & K Hamilton, "Savings, Growth and the Resource Curse Hypothesis" (2003) 31:11 World Development 1793-1807.

resource wealth and poor outcomes.[61] El Anashasy and Katsaiti, in their empirical study of the relationship between good governance and abundant natural resources concluded that better governance, strong democratic institutions, and more transparent budgets improve resource windfall management, leading to higher growth rates. They found that a resource curse exists under conditions of weak democratic governance institutions.[62] The political institutions in Norway appear to be less fractionalised and work towards the collective good of the entire state. Norway's economic success confirms the observations made by the most recent literature on the resource curse and the Dutch disease that, given a competent government and efficient political institutions, natural resources have no negative consequences, but do have positive effects.[63]

However, a strong institution is not an end in itself. In Norway, the system has worked well partly because of the public consensus that the Fund should serve to alleviate the pressure on the state coffers that the country's ageing population is forecast to place on future pension commitments.[64] This emphasises the role of civil society in the development of the economy. Cooperation and commitment from Norwegians have aided the effective and efficient use of petroleum revenue. Saving is more difficult when electorates believe that high taxes are not necessary where the Fund is so well endowed.

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[61]See: P Stevens & E Dietsche, "Resource Curse: An Analysis of Causes, Experiences and Possible Ways Forward" (2008) 36 Energy Policy at 56-65.

[62] See: AA El Anashasy & M-S. Katsaiti, "Natural Resources & Fiscal Performance: Does Good Governance Matter?" (2013) 37 Journal of Macroeconomics 285-298 at 296.

[63] See generally: E Roed Larsen, "Are Rich Countries Immune to the Resource Curse?: Evidence from Norway's Management of its Oil Riches" (2005) 30 Resource Policy 75; Steiner Holden, "Resource Curse: An Analysis of Causes, Experiences and Possible ways Forward" (2008) 63 Energy Policy 56; Steiner Holden, "Avoiding the Resource Curse: the Case Norway" (2013) 63 Energy Policy 870; Valerie Marcel, "Prospect for Good Governance in Lebanon's Nascent Petroleum Sector" (2013) 2 Energy Strategic Reviews 122.

[64] See: Steiner Holden, "Resource Curse: An Analysis of Causes, Experiences and Possible ways Forward" (2008) 63 Energy Policy 56 at 60.

Transparency and accountability have been a universal principle applied in the management of Norwegian petroleum wealth. This has contributed to better governance, less corruption and the provision of a basis for economic and social development in the country. Norway is a classic example of how transparency, accountability and good governance can shape the fortunes of a state. As part of the implementation of the Extractive Industries Transparency Initiative (EITI), the Ministry of Petroleum and Energy publishes annual reports summarising the reconciliation of cash flows from petroleum activities. Transparency is guaranteed through the constitution and regulated through a number of laws and regulations.[65] These laws are mostly of general application and are not limited to the petroleum industry. Moreover, the availability of information bolsters the demand for accountability. Accountability is achieved through extensive publication on the usage of the Fund's savings. It extends to how the Fund savings are invested and the returns accruing from such investments, which ensures the efficient and effective use of petroleum revenue.

In sum, it can be stated that Norway has effectively managed its petroleum revenue. This has been achieved through good governance, institutional quality and the overall regulatory framework. However, as Gylfason rightly noted, Norway's wealth does not only stem from oil. Norway has managed her other natural resources equally well, which has relieved the pressure that would have ordinarily been placed on petroleum revenue,[66] pointing to the need to have

[65] Under Article 100 of the Constitution of the Kingdom of Norway, "Everyone has a right of access to documents of the State and municipal administration and a right to follow the proceedings of the courts and democratically elected bodies. […] It is the responsibility of the authorities of the State to create conditions that facilitate open and enlightened public discourse".

[66] Gylfason, posits that Norway has always had its natural resources, but it was only after the advent of educated labour that it became possible for Norwegians to harness those resources on a significant scale. To him, human capital accumulation was the primary force behind the economic transformation of Norway, while the natural capital was secondary (see: Thorvaldur Gylfason "Norway's Wealth: Not Just Oil", June 2008. This accession may be supported by evidence of the dominance of foreign oil companies in the Norwegian petroleum sector at the inception of the petroleum industry.

multiple sources of revenue and not to put 'all of one's eggs in one basket'. Traditional industries, like metals, pulp and paper products, chemicals, shipbuilding, and fishing contribute substantially to the economy in terms of exports, income and employment. With such a diversified economy, the government is able to use revenue generated from petroleum activities for the purpose the Fund is meant for.

In terms of the organisational and institutional arrangements for managing the Fund, the central governing function is primarily the province of the Ministry of Finance. Under the Act, the Ministry is responsible for the management of the Fund. Norges Bank (the Central Bank of Norway) is given the task of operating the day-to-day management of the Fund on behalf of the Ministry of Finance.[67] As part of its function, the Ministry defines the long-term investment strategy of the Fund. There are clear lines of responsibility between the Ministry of Finance and Norges Bank. The Fund is managed within the guidelines and regulations set by the Minister. Key features of asset management are transparency, reports and supervision. The Storting is also given oversight responsibility in relation to some aspects of Fund management. The institutional arrangement is exhibited by the right checks and balances, promoting transparency and accountability in the management of the Fund.

This section confirms that Norway has been successful in the management of its petroleum revenue under the Petroleum Pension Fund. The appropriate regulatory framework with the required restraints and checks have been put in place. In addition, good governance and effective political institutions have contributed significantly to the success story. Norway is thus a classic example which Ghana can follow in managing its petroleum revenue.

[67] It is believed that Norges Bank was chosen for several reasons, including its experience in managing its exchange reserves, its close relationship between the Fund mechanism and monetary policy and the Bank's knowledge of the constitutional set up and background to the Fund.

6. Conclusion

This chapter has examined the regime for managing oil revenue in Norway. The examination confirms that, although the fiscal regime in Norway is significantly different from that of Alberta, the regime has been effective in ensuring that the government derives maximum returns from petroleum development. This provides another example for Ghana, the components of the two regimes described above combining effectively in the development of the country's nascent petroleum wealth. In terms of revenue management, it is evident that Norway has successfully managed its oil revenue using the Petroleum Pension Fund, which underscores the choice of Norway's framework as an example for Ghana.

In the next two chapters, Ghana's fiscal regime and the regime for managing oil revenue will be respectively examined to determine the effectiveness of the regime, using the Alberta and Norway models as the launch pad.

CHAPTER FOUR: THE FISCAL REGIME RELATING TO PETROLEUM DEVELOPMENT IN GHANA

1. Introduction

This chapter examines the current fiscal regime for deciding the government's share of petroleum revenue in Ghana. It contextualises revenue generation from the development of the country's petroleum resources. The chapter is divided into two main parts. The first will examine the tenure granting system for acquiring petroleum rights in Ghana. The second part will assess how Ghana's financial take is determined. The objective of the chapter is to determine whether Ghana's fiscal regime for managing its petroleum resources is effective for securing for the country its fair share of the revenue from petroleum development.

2. The Acquisition of Petroleum Rights

2.1 The Tenure System in Ghana

In Ghana, petroleum rights are owned exclusively by the state. Unlike jurisdictions in Canada and the US, freehold mineral rights do not exist in Ghana. Section 1 of the *Petroleum (Exploration and Production) Law* provides that all petroleum existing in its natural state within the jurisdiction of Ghana is the property of the Republic of Ghana.[1] The law further mentions that no state institution or person other than the Ghana National Petroleum Corporation, established under *Ghana National Petroleum Corporation Law*, shall engage in the exploration, development, or production of petroleum, except in accordance with the terms of a petroleum agreement entered into between that person, the Republic, the Corporation, or any other authority with powers granted or recognised under the Law.[2]

[1] See also Article 257(6) of the 1992 Constitution of the Republic of Ghana.

[2] Section 2 of the Petroleum (Exploration and Production) Law.

The fiscal regime for the exploration and production of petroleum in Ghana is regulated under *Petroleum (Exploration and Production) Law*, 1984 (PNDC Law 84).[3] PNDC Law 84 is supplemented by a Model Petroleum Agreement[4] governing petroleum contracts between Ghana and other contractors.

Tenure under PNDC Law 84 is basically a discretionary/administrative system. The tenure arrangement has a lot in common with the regime in Norway in as much as it relates to the disposition of petroleum rights and state participation, and significantly different from the regime practiced in Alberta, which is a bonus bidding system.[5]

The disposition of petroleum rights starts with the acquisition of a petroleum lease/petroleum agreement. Without such an agreement, a prospective investor cannot undertake exploration or production activities in the country. Disposition mainly takes place via the administrative/discretionary system - or what may be termed as 'work-programme bidding'.[6] Prospective investors submit applications for petroleum rights to the Minister.[7] These applications are submitted directly without the need for declaration that an area is open for

[3]This was the first distinct regulatory framework for the petroleum industry. Before PNDC Law 84, petroleum exploration and production activities were regulated under the Minerals Act, 1962 (Act 126). The Act created the same regime for oil and other minerals. Thus, before 1984 when PNDC Law 84 was promulgated, the legislative framework for minerals and mining operated to cover both petroleum and gas resources and other 'hard minerals'. See generally: Chapter one supra.

[4] The Model Petroleum Agreement was drafted in 2000. It emanates from the Petroleum Exploration and Production Law to guide the implementation of the legislation. It guides the process of negotiating the terms and conditions of a Petroleum Agreement among the parties. For a complete discussion on the Model Petroleum Agreement, see: Kwamina Pamford, "The Crucial Roles of Ghana's Model Petroleum Agreements: The Public Policy Implications and Requirements" (2010) 4 Ghana Policy Journal 81.

[5] In Alberta, the government functions as a regulator and participates in petroleum development through royalties and taxes. There is no particular direct interest in petroleum agreements.

[6] This involves an administrative evaluation of investors' work programmes, with any bidding to determine the highest bidder.

[7] The responsible Minister is the Minister of Mines and Energy.

petroleum activities, or as a result of a request for specified land to be put up for auction, as is the case in Norway and Alberta respectively. The process involves a presentation of work-programme plans which are then evaluated to determine the eligibility of the investor. Currently, there is no regulation on how these applications are evaluated. The award of the licence is at the discretion of the Minister. There are no up-front payments in the acquisition of petroleum leases in Ghana.

A petroleum agreement covers the exploration, development and production of petroleum.[8] In essence, a petroleum agreement grants both exploration and production rights. The rights granted under a petroleum agreement in Ghana are significantly different from those in other jurisdictions. In Norway, for example, exploration and production licences are granted separately. This also seems to be the practice in Alberta, where an investor may apply for either a production lease or an exploration licence, although those two instruments are now functionally similar.

A petroleum agreement is valid for a total period not exceeding 30 years, which covers both exploration and production.[9] The petroleum agreements provide for minimum work and expenditure obligations to be fulfilled by a contractor during the initial exploration period and each subsequent extension of such period.[10] The lease expires after the primary term. There is no provision for continuation of the primary term so long as production continues. This is different

[8] See section 33 of the Petroleum (Exploration and Production) Law.

[9]Under the Model Petroleum Agreement, exploration activities should cover a period of not more than seven (7) years, except as provided for in accordance with the Petroleum Law. The Model Agreement divides the exploration period into an initial exploration period and extension periods. This arrangement is believed to balance the state interest in getting the resources developed and the investor's interest in a requisite timeframe for working towards achieving its working programme plans. The time for commercial discovery may be taken into account to extend the 30 year agreement. See generally, Articles 3 and 4 of the Model Petroleum Agreement.

[10] See section 15 of the Petroleum (Exploration and Production) Law.

from the position in Alberta, where the primary term is continued by production. At the end of the primary term, the operator may negotiate for an extension to the agreement with respect to the contract area. The agreement will only continue beyond the primary term when the Minister has consented to the extension of the agreement. Failure to consent to such an extension cannot be taken as a breach of the agreement.[11]

The Model Petroleum Agreement grants GNPC an initial carried interest in all petroleum operations in the country.[12] The carried interest is defined as an interest held by GNPC in respect of which the contractor pays for undertaking the petroleum operations without any entitlement to reimbursement from GNPC.[13] The state interest may be considered a variant of the regime use in Norway. However, the vital difference between these two regimes is the method of acquisition. Whereas in Norway, state participation interest is a paid interest, Ghana's carried interest is a free interest under the law.[14] This is a beneficial provision from Ghana's perspective. The Model Petroleum Agreement sets the level of GNPC interest at 10 per cent. From the perspective of the investor, this provision does not sit well with equity principles in resource extraction. This plays a role in the producer determining its initial risk and cost. However, the cost incurred is taken into account to determine the expected profits of the company.

Under PNDC Law 84 and the Model Petroleum Agreement, the state is also entitled to purchase additional interests in each contract area.[15] This is, however, a paid interest in respect of which the GNPC pays for the carrying out

[11] See section 23 of the Model Petroleum Agreement.

[12] See Article 2.4 of the Model Petroleum Agreement.

[13] See Article 1.10 of the Model Petroleum Agreement.

[14] In Ghana, the interest is held by the state but the contractor pays for undertaking petroleum operations without any reimbursement from the state.

[15] See section 17 and Article 2.5 of the Petroleum (Exploration and Production) Law and of the Model Petroleum Agreement, respectively.

of petroleum operations. Here, the state pays for its share of drilling and production costs. The State may exercise the option of acquiring additional interests in the petroleum operations from the date a discovery is declared to be commercial. This interest is likened more to Norway's participation interest. Just as in Norway, the percentage interest is subject to negotiations and will vary for each contract.[16] However, in contrast to Norway, Ghana's participating interest is relatively low. A study of the country's additional interest has revealed that the average interest may be around 4.0 per cent.[17]

The state's carried interest and additional interest constitute two major sources of revenue to the government. The carried interest and the additional interest may be taken in cash or in kind. The interests are levied after the deduction of royalties and production costs. However, the deduction of exploration costs is not permitted. The carried interest and the additional interest are two significant means in which the state benefits from the development of its hydrocarbons, but constitute a reduction in the overall profit of the investor. In 2013 fiscal year, carried interest and the state's additional interests accounted for 54.48% of the total petroleum receipts. These interests are managed on behalf of the state by the GNPC.

One significant provision emanating from state participation interests is the Joint Management Committee (JMC). The JMC applies to all petroleum agreements and is constituted by two (2) representatives of GNPC and two (2) representatives of the contractor. The chairperson of the JMC is, however, designated by GNPC from amongst the members of the JMC. The mandate of the Committee is to ensure that the parties cooperate in the implementation of petroleum operations and that all approved work programmes and development

[16] The law do not impose any limit on this interest.

[17] Joe Amoako-Tuffour and Joyce Owusu-Ayim, "An Evaluation of Ghana's Petroleum Fiscal Regime" (2010) 4 Ghana Policy Journal 7 at 11.

plans are complied with.[18] This provision is of real benefit to the state. It means that accounting for costs and expenses and the maintenance of records and reports concerning petroleum operations must be carried out in accordance with the petroleum agreement. The state's interest is well represented on such a committee.

The law imposes on any person holding a title to, or an interest in land to which the petroleum agreement relates, to permit the contractor to enter and carry out petroleum operations.[19] This is of particular importance to the investor in obtaining security for, or non-interference with, his investment assets. The person with a title or interest in such land who suffers any loss or damage as a result of petroleum operations is to be compensated.[20] Compensation is paid for any damage caused to the surface of the land, buildings, works or improvements or to livestock, crops and trees as a result of such petroleum operations. This may be likened to the surface rights provisions in Alberta. Both Alberta and Ghana recognise the rights of the surface owner.

2.2. Assessment of the Tenure System

Ghana's system for resource disposition may be considered as a variant of the Norwegian system, which is more of an administrative procedure. Tordo has rightly observed that a shortfall of this approach as a means of resource allocation is the challenge the government faces where there is no knowledge of the resource base on which to found the definition of an acceptable or optimum work programme.[21] Work-programme bidding will place an administrative burden on

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[18] See generally, Article 6 of the Model Petroleum Agreement.

[19] See section 6 of the Petroleum (Exploration and Production) Law.

[20] See generally, section 7 for the compensation package.

[21] Silvana Tordo, David Johnston and Daniel Johnston, *Petroleum Exploration and Production Rights: Allocation Strategies and Design Issues,* online: World Bank Working Paper No. 179 (2010)<https://openknowledge.worldbank.org/bitstream/handle/10986/5954/518400PUB0REPL101Official0use0Only1.pdf?sequence=1> at 24.

the state in areas of its technical capacity and resources to evaluate the application. The system is more demanding on government resources overall. In addition, it is more vulnerable to political lobbying pressure and corruption.

However, depending on the political, social and economic objectives that policy makers wish to achieve through the granting of petroleum rights, such a system may be a convenient and proper means of resource allocation. The system can be more flexible to allow the government to pursue its policy objectives. As is evident from the Norwegian system, it allows the government to retain some level of control over the level of petroleum development. This may explain why Ghana has adopted such a regime for its petroleum rights disposition. The discretionary system has worked well in jurisdictions like Norway. One key challenge to citizens under such a system is how to judge the decision criteria. Given its apparent disadvantage from the public perspective, there is the need for well-defined rules on how citizens may assess the fairness of a given decision. This would increase transparency, thereby reducing avenues for corrupt practices.

The challenges under an administrative method of resource allocation may be addressed by replacing the system with a bonus bidding procedure. Alberta's regime is a typical example of a bonus system. Although in Ghana, section 32 of PNDC Law 84 makes provisions for the Minister to create regulations for competitive bidding procedures for petroleum agreements, at the time of writing, there has been no contemplation of this. Compared to the administrative procedure, the bonus bidding system is relatively easy to administer. It ensures transparency. It is also more economical since the government is able to secure some upfront revenue, even before production and without any risk. The system also ensures that petroleum rights are given to producers who are ready to develop the resources and the upfront payments prevent speculation in the system. The bonus bidding system seems to have been well situated in the context of Alberta's disposition system, but it is doubtful whether such a system is ideal in the context of Ghana. Bonus bids have their own constraints and implications. In general, the

system is more beneficial in areas where there is a high probability of success. For such a system to work, sufficient information on the resource potential of the country is imperative, as the proven reserves and potential of other recoverable reserves are a crucial determinant of the success of a bidding system. In addition, the political atmosphere and economic benefits will influence investors in making their bids. These are the key reasons for the successful application of the bonus system in Alberta. However, given that bonuses represent revenue to the government even before production, they affect the project risk by increasing its exploration and development costs. This may deter investment where the probability of investment returns is uncertain.

Bonus bidding is certainly not the best method of resource disposition for Ghana. The resource potential does not favour such a system and the economic and political atmosphere may negatively deter investors from making higher bids. In Ghana, the discretionary/administrative system may be an effective means of resource disposition if some of the challenges are addressed. PNDC Law 84 was promulgated at a time when petroleum exploration and production were insignificant in Ghana. At that time, the policy rationale was to encourage the exploration and development of the country's petroleum potential. As more information on the geological potential becomes available, the licence policy may consider a shift from encouraging development to generating revenue.[22]

The fact that there is no upfront payment for the acquisition of petroleum rights is quite surprising, given that upfront payments serve as risk free money for the government. This seems to be a significant departure from the regime under the *Mines and Minerals Act*, 2000, where prospecting licences and mining leases

[22] This seems to be the approach used by Canada in encouraging and promoting the development of minerals in frontier or remote areas. Canada encourages development by not trying to make money upfront; it is content to wait to make money once development occurs. This contrasts with Alberta's approach, which is more focused on making money upfront (e.g. through the bonus bidding system).

are granted separately.[23] From the perspective of the investor, this present system reduces the cost of the project by taking away pre-production payments. It is therefore a means of attracting investors. However, this system is of high risk to the state in terms of revenue generation and the potential of entering into a bad contract. Although a system which imposes high charges, especially during the pre-production stage, may be unattractive and retard investment, a minimum amount in the form of payment for the acquisition of an exploration license will benefit the country in many ways. In terms of revenue generation, the country is whittling away what it could have validly claimed from granting exploration and production rights. This would have offered some upfront revenue to the government and would also have been risk free. In addition, some initial risk at the pre-production stage is necessary in order to secure the commitment of the investor. This will ensure that the country is not used as speculative ground by investors. The costs may be taken into account to determine the overall corporate profits of the company.[24]

The provisions on the carried interest and additional interest ensures that private investors do not walk away with the lion's share of resources belonging to the people. It ensures additional revenue to the state from profitable ventures.[25] This provision is lacking under the regime in Alberta. In Alberta, private investors

[23] Applicable fees are set for the granting of reconnaissance licences, prospecting licences and for the granting of mineral leases. As at 1st September 2011, the applicable fees to be paid to the Minerals Commission for the granting of mineral rights are as follows: a reconnaissance licence is US$ 15,000.00 and GHS 10, 000, for a foreign controlled company and a Ghanaian controlled company, respectively. The fee for a prospecting licence is US$ 20, 000.00 and GHS 12,000 for a foreign controlled company and a Ghanaian controlled company, respectively. With respect to mining leases, the fee is US$ 100,000.00 and GHS 50, 000 for a foreign controlled company and a Ghanaian controlled company, respectively. Although the policy rationale behind the differences in fees has not been explained, it is believed to be in line with the country's general policy of promoting the participation of indigenous companies in the mining industry.

[24] Under the regime, exploration and development costs are allowable deductions.

[25] Although the Ghana's additional interest is beneficial, it is relatively small compared to jurisdictions like Norway.

dominate the oil industry. The government serves only as a regulator and participates through bonuses, royalties and taxes. Under Ghana's system, the state is the regulator, but also a producer. Although, the additional interest may be of some risk to the government as the government pays for the costs of exploration, development and production, this may be of immense benefit to the state where profitability is high.[26] Aside from the revenue generation potential of such interests, the state also acquires some managerial stakes in the undertaking and operating of the project.

The JMC is a laudable provision as a means of ensuring that producers accurately remit revenue or production shares to the state. It is imperative that the state receives its fair share of petroleum revenue. The auditing mechanism will also play a key role in ensuring maximum benefits for the state. The questions that need to be addressed are as follows: Are there field inspectors? What records must be kept on site? And what access to records must be permitted? In addition, what keeps the auditors honest? Addressing these pertinent issues will ensure the state the appropriate benefits from its hydrocarbons. Although the PNDC Law 84 seems to make provisions for some of this,[27] it is doubtful whether the provisions are enough to safeguard the interests of the state. There must also be a requirement to adequately train field inspectors, so that they will not be fooled by producers. There should be mechanisms in place to discern whether the persons carrying out field inspections receive accurate reports, and if possible, a system of auditing the auditors.

As has already been mentioned, compared to other jurisdictions, Ghana's petroleum rights have a long duration. The 30 year term for petroleum rights is investor friendly, especially for contractors to effectively execute their

[26] Since the state's additional participation interest is a paying interest, it is one area where information on exploration is imperative. This will assist the government in determining whether to acquire a lesser interest, or to negotiate for a higher stake in the project.

[27] See generally, sections 26 and 27 of the Petroleum (Exploration and Production) Law.

development plans. It may, however, be a disadvantage to the state where development is slow. The country could be locked up in a bad agreement for a long duration; all the more so due to the absence of delay rental payments under the law. Delay rental provisions would force investors to produce, or would at least ensure the state some revenue where an investor has reluctantly delayed the development of a project.[28] In the alternative, 'escalating rents',[29] as used in Alberta's oil sands, would serve as an incentive to either develop or surrender the land. Even though the law makes provisions for relinquishment, it is arguable whether such provisions can serve the same purpose as delay rental provisions.[30]

Ghana's provision on surface rights begs many salient questions and demands scrutiny. As in Alberta, is the owner entitled to mine resources such as clay or other products which are not considered as minerals or petroleum products? Is the title holder permanently deprived of the benefits of the land, even after the petroleum activities? Are there requirements for the operator or contractor to restore the land to its original use after the extraction? These important issues are worth addressing. Section 28 of the PNDC Law 84 seems to provide for the restoration of affected land. It is however doubtful whether this is restoration in the sense of the word the section intends.[31] From the wording of

[28] For judicial pronouncements on delay rental provisions in Alberta, see: *Paddon Hughes Development Co v Pancontinental oil Ltd* 1998 ABCA 333 and *Canadian Superior Oil Ltd v Crozet Exploration Ltd* (1982), 34 AR 256 (QB).

[29] The concept is that if production does not occur within a specified time, the rent increases.

[30] See section 14 and Article 5 of the Petroleum (Exploration and Production) Law and the Model Petroleum Agreement.

[31] Section 28 of the Petroleum (Exploration and Production) Law essentially provides that, after the termination of petroleum operations in any area, the Corporation, or the contractor, shall restore the affected areas and remove all causes of damage or danger to the environment in accordance with the Regulations. Such restoration shall include the removal of all property brought into the affected area, but which is no longer required for further petroleum operations, the plugging or closing off of all abandoned wells in such a manner as may be provided by the Regulations, and the conservation and protection of natural resources in such an area.

section 28, it seems perfectly in order that the legislature applies decommissioning[32] in place of restoration. Because there is no provision on decommissioning under Ghanaian laws, it may be assumed that the Act intends to refer to decommission rather than restoration. These two concepts are entirely different and come with their own arrangements. Restoration does not start after the completion of a project, but the process is initiated even before the project commences. In areas like Alberta, where restoration/reclamation has been successful, the process is addressed at the inception stage of the project and applied progressively. This provision is worth exploring again for the benefit of land owners.

3. Elements of the Government Share from Petroleum Revenue

3.1 Revenue Sources

This subsection will critically assess the various methods through which the government participates in the financial returns from mineral development. The revenue sources are limited to petroleum receipts accruing to the government other than the GNPC carried interest and additional interest.

3.1.1 Fees

Petroleum producers are liable for surface rental charges payable to the Republic, as they may be prescribed by the Minister or under the Petroleum Agreement.[33] However, it is not specified whether such surface rentals relating to onshore

[32] Azaino defines decommissioning as the process by which possibilities for the physical removal, disposal or re-use of an installation/structure at the end of its productive lifespan are assessed; a plan of action is prepared by the operator, and approval is first gained from the government, and then implemented. See: Efe Uzezi Azaino, International Decommission Obligations: *Are There Lessons Nigeria can acquire from the UK'S Legal and Regulatory Framework?* Online: CEPMLP Gateway <http://www.dundee.ac.uk/cepmlp/gateway/files.php?file=cepmlp_car16_22_563496604.pdf> at 5-6.

[33] See section 18 of the Petroleum (Exploration and Production) Law.

production are meant for the surface rights holder, or for the state.[34] It must be emphasised that this fee differs from the compensation a contractor may pay a landowner for surface disturbance. Surface rentals are relatively insignificant compared to other sources of government revenue. Their value to the state is limited to defraying a small administrative cost. On the other hand, they do add to the overall cost of a project. The apparent negative effect of this payment to investors is minimised by making it deductible from the corporate profits.[35]

3.1.2 Royalties

Producers pay royalties on the petroleum produced.[36] The block allocation and water depth, may vary the royalty rate for each agreement. The Model Petroleum Agreement sets a default royalty rate at 12.5 per cent. Nevertheless, this rate is not fixed, but rather negotiated. It is not certain why the state has chosen a royalty regime that is subject to ad hoc negotiations.

Ghana's regime allows royalties to be taken in cash or in kind. This is laudable as it allows the country not only to obtain its own prices, but also to use oil for strategic purposes; for example, supporting domestic consumption. Royalties are levied on gross production, irrespective of profitability. In contrast to Alberta's royalty regime, Ghana's royalty regime is not price sensitive. This position may have been informed by the country's experiences of administering its royalties under the minerals sector, since Ghana has not been able to effectively administer the price sensitive royalty regime used for its minerals development.[37]

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[34]In Ghana, land is predominately owned by stools and individuals. The state acquires land through statutory acquisition and what is commonly called 'eminent domain'.

[35] See section 3 of the Petroleum Income Tax Law.

[36] Where the exploration, development and production of petroleum is carried out by the Corporation and not in association with a contractor, the Corporation shall be subject to the payment of royalties at such rates as may be prescribed from time to time. See section 20 of the Petroleum (Exploration and Production) Law.

[37] It has been reported that the inability of tax administrators in Ghana to assess and collect royalties and taxes has reportedly led to the country losing at least US$ 387.74 million between 1990 and 2007 (See: *Breaking the Curse: How Transparent Taxation*

From the perspective of the producer, gross royalties are not an equitable means of risk sharing. However, such a provision is of significant benefit to the state as it ensures some revenue for the government, irrespective of profitability. Compared to the tax regime used in Norway, *ad valorem* royalties are also relatively easy to administer. The country is thus able to avoid the administration and enforcement of more sophisticated forms of taxation.

3.1.3 Petroleum Income Tax

Petroleum producers are liable to pay tax on their chargeable income for each year of assessment.[38] The *Petroleum Income Tax Law*, 1987(PNDC Law 188) sets a default rate at 50 per cent.[39] It must however be stated that the tax rate may be altered in the petroleum agreement. In the Jubilee field, the rate has been fixed at 35 per cent.[40] Compared to Norway, Ghana's petroleum tax may be said to be on the low side. However, this may be explained by the *ad valorem* royalty system used in Ghana. Such systems tend to be correlated with lower taxes. In the case of Alberta, the high upfront payment relating to bonuses reflects on the lower tax rate in the Province.[41] However, a key problem of taxation is how to get from gross income to net profit – i.e. taxable income. The *Petroleum Income Tax Law* allows the deduction of outgoings and expenses, wholly, exclusively and necessarily incurred by a person for the purpose of petroleum operations during the year of assessment.[42] Rentals and royalties are some of the permissible deductions under the law. These deductions are to serve as incentives to investors

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and Fair Taxes Can Turn Africa's Mineral Wealth into Development (Open Society Institute of South Africa, Third World Network Africa, Tax Justice Network Africa, Action Aid International & Christian Aid: March 2009, at 29).

[38] Section 1 of the *Petroleum Income Tax Law*.

[39] Section 6 of the *Petroleum Income Tax Law*.

[40] *Supra* note 17 at 10.

[41] As mentioned earlier, in Alberta, the minerals sector and other sectors of the economy are subject to the same Provincial corporate tax.

[42] Section 3 of the Petroleum Income Tax Law.

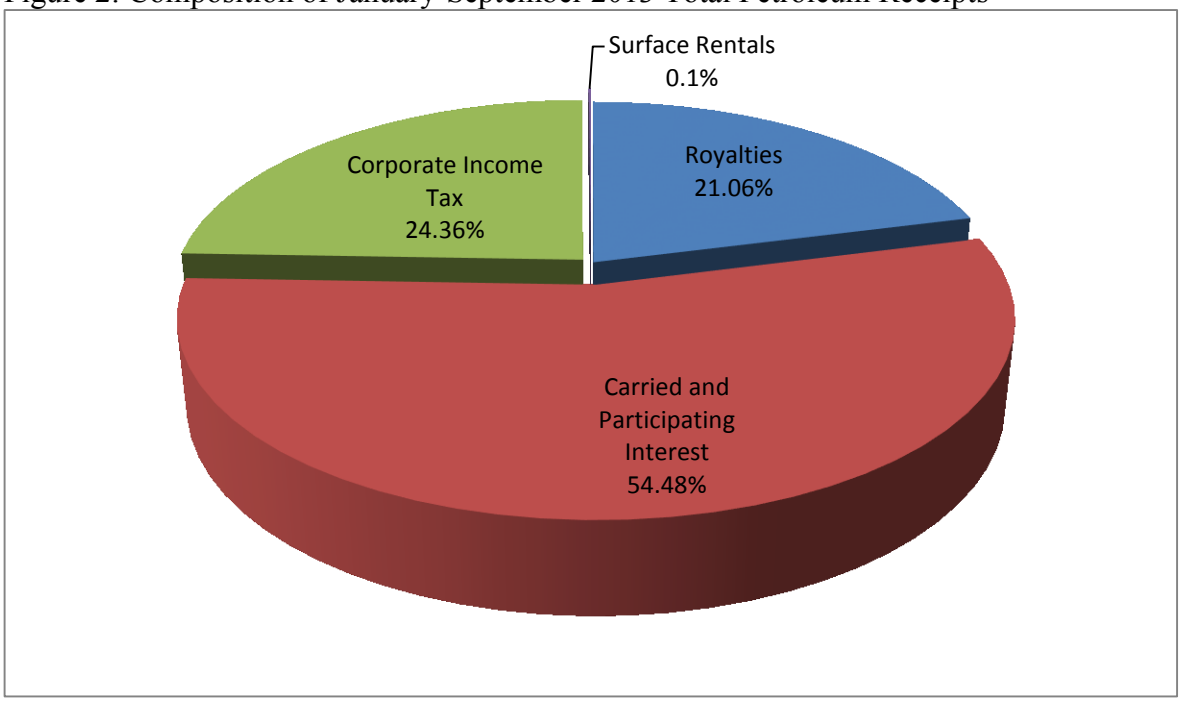
to encourage the development of the country's petroleum resources. Compared to progressive tax, Ghana's flat rate is economical in its administration. Nevertheless, given the many tax incentives under the law, mechanisms should be put in place to reduce tax avoidance and evasion if the country is to derive the right benefits under the tax section.

Table 4 and figure 2 represent a summary of the government's share from petroleum activities for January – September 2013 (Petroleum receipts in US$)

Table 4: January – September 2013 (Petroleum receipts in US$)

Item	Budget(Jan-Dec 2013)	Actual(Jan-Dec 2013)	Variance	
Royalties	143,719,814	149,038,350	5,318,536	
o/w Jubilee Royalties	143,516,001	148,634,519	5,118,518	
o/w Saltpond	203,812	403,831	200,019	
Carried and Participating Interest	371,958,838	385,224,801	13,265,963	
Corporate Income Tax	55,861,240	172,216,932	116,355,692	
Surface Rentals	421,799	797,777	375,978	
Gas Receipts	9,760,00	-	(9,760,000)	
Total	581,721,691	707,277,859	125,556,169	

Figure 2: Composition of January-September 2013 Total Petroleum Receipts



Source: Ministry of Finance 2013 Annual Report on Petroleum Funds <http://www.mofep.gov.gh/sites/default/files/reports/2013_Annual_Petroleum_Report.pdf>.

Figure 2 illustrates the relative size of the various revenue streams from January to December 2013. As with Norway, Ghana's participating interests are the main source of revenue for the government from petroleum development.

3.2 Assessment of Revenue Sources

In terms of revenue generation, Ghana's fiscal regime seems effective from the perspective of the state. Although, the *ad valorem* royalty may in some cases retard the investment and development of the country's petroleum potential, it seems to sit well in the context of Ghana. It is doubtful whether the country has the same potential to establish an institutional framework that can effectively administer and enforce the profit tax system used in Norway. It must be mentioned that Norway initially started with a royalty regime for administering its petroleum

revenue, before adopting the tax system. Ghana may adopt a tax system when the country is capable of effectively administering a profit tax system to ensure maximum benefits for the state. A lot of lessons have been learnt from the price sensitive royalty system used in the mineral sector. This may explain why the country has chosen an *ad valorem* royalty which is less difficult to administer than the price sensitive approach used in Alberta. However, as in Alberta, Ghana's royalty regime ensures that the state gains revenue, irrespective of project profitability. This is clearly beneficial to the state. Furthermore, although the *ad valorem* approach may retard investment in marginal wells, there are compensatory provisions to cater for this adverse effect. Under the regime, the apparent negative impact of the *ad valorem* royalty is minimised by making royalty an allowable deduction in calculating the overall profit of the company. Neither are there any upfront payments made by investors in the acquisition of petroleum rights. These provisions are to ensure some returns to investors on their investment, but there are other aspects of the regime that must critically be examined.

The regime seems to leave a great deal of discretion in the negotiation of petroleum agreements. Owusu-Ayim and Amoako-Tuffour have rightly pointed out that many elements of the current regime are open to contractual variation, leaving Ghana's share of the resource rent subject to potential ad hoc negotiations.[43] Under section 20 of the *Petroleum (Exploration and Production) Law*, the payment of royalties may be subject to the terms of the petroleum agreement. In addition, section 6 of the *Petroleum Tax Law* subjects the payment of taxes to the terms of a petroleum agreement.[44] It is surprising that the government has adopted such a regime that is prone to many contractual variations. In jurisdictions like Alberta, discretion is given to the Lieutenant Governor and the Ministry in dealing with many of the possible issues arising

[43] *Supra* note 17, at 30.

[44] See also section 19 of the Petroleum (Exploration and Production) Law.

under the regime. It is, however, doubtful if such a system would be ideal for Ghana. The provision that the petroleum agreement may make alternative tax arrangements is really surprising and does not sit well with good tax practices. Typically, tax rates are set in legislation, or at least regulations. The state's share will thus depend on the strength of its bargaining position, which in most cases is lacking. Although discretionary provisions provide flexibility and allow the government to achieve some of its policy objectives, such discretion can be disadvantageous to the country. It not only defeats uniformity and standardisation, but has the negative effect of introducing political lobbying and corruption. In effect it makes the system subject to ad hoc negotiations. The ideal situation is for the fiscal regime to be defined in legislation in a way that is neither rigid, nor with too much discretion left to the contracting parties.[45]

4. Conclusion

Ghana's fiscal regime for generating petroleum revenue is relatively fair. The state participation interests, together with the gross royalty provision and corporate tax, ensures the state some share in the development of its petroleum resources. However, as has been identified, there still remain some challenges to be addressed.[46] This will ensure that the state derives maximum benefits from the development of its petroleum. Another key challenge is how to sustainably manage petroleum revenue and also minimise revenue leakage in the management of this revenue. These two are key in ensuring that petroleum revenue benefits all citizens of the state. The next chapter will critically evaluate the existing regime for managing Ghana's petroleum revenues

[45] *Supra* note 17, at 30.

[46] At the time of writing, a new Petroleum (Exploration and Production) Law is being considered. It is suggested that the review committee take into account the issues raised here.

CHAPTER FIVE: THE REGIME FOR MANAGING OIL REVENUE IN GHANA

1. Introduction

This chapter will explore in a concrete manner how the revenue generated from oil[1] is currently being used, and how it can potentially be used for economic development in Ghana. Managing oil revenue has always been a key issue among resource rich countries. This chapter is concerned with how governments administer resource wealth and how they use natural resource revenue. The objective is to evaluate the effectiveness of Ghana's legislative and regulatory framework in terms of managing oil revenue, in the context of managing oil revenue as part of Ghana Petroleum Fund. Taking inspiration from Norway, the section will argue that Ghana needs a well-administered and monitored petroleum fund that is beneficial to her citizens.

2. The Ghana Petroleum Revenue Fund

2.1 Regulatory and Institutional Framework of the Ghana Petroleum Fund

The Fund is an all-in-one fund created for the transfer and management of oil revenue in the country. The current legislative and regulatory framework for managing oil revenue in Ghana comes under the *Petroleum Revenue Management Act*, 2011[2]. The objective of this Act is the collection, allocation and management of petroleum revenue in a responsible, transparent, accountable and sustainable manner for the benefit of the citizens of Ghana. How far this has been, or is being achieved is yet to be seen.

The Petroleum Holding Fund is made up of the Ghana Stabilization Fund and the Ghana Heritage Fund. The Act provides for the scope of revenue payments

[1] For this discussion, 'oil' is used to embrace both conventional oil and natural gas.

[2] Act 815.

into the Fund. There is a comprehensive list of what constitute gross receipts of petroleum revenue which must be paid into the Fund. These include royalty payments, taxes, fees, dividends, or any sum received by the government, whether directly or indirectly, from petroleum resources.[3] Section 6 provides in clear terms the revenue expected to be transferred to the Fund[4]. The provision defines what constitutes petroleum revenue under the Act. The list is comprehensive and captures all revenue the state may derive from its petroleum development. The provision is likened to section 5 of the Norwegian Pension Act, which defines what constitutes petroleum receipts, which is laudable, given that it greatly limits the government's discretion as regards transferring petroleum revenue into source other than the Fund. Experience demonstrates that the exercise of discretion in this area is often abused, especially where there are no specific rules on the revenue to be transferred into the Fund. As was identified in Alberta, the absence of such a provision gives a wide berth to the government to determine the types of petroleum revenue to put into the Fund. This has in fact hindered the growth of the Heritage Fund.

The revenue paid into the Fund is not treated as part of normal tax revenue.[5] This provision sits well with good management from the perspective of natural resource funds. Unlike the country's mineral revenue, which is co-mingled

[3] *Ibid*, sections 3, 6 and 7.

[4] Gross receipts of petroleum revenue into the holding fund include: (a) royalties from oil and gas, additional oil entitlements, surface rentals, other receipts from any petroleum operations and from the sale or export or petroleum, (b) any amount received from the direct or indirect participation of the government in petroleum operations, (c) corporate income tax in cash from upstream and mid-stream petroleum companies, (d) any amount payable by the national oil company as corporate income tax, royalties, dividends, or any other amount due in accordance with the laws of Ghana, and (e) any amount received by the government either directly or indirectly from petroleum resources not covered by paragraphs (a) to (d), including where applicable, capital gains tax derived from the sale of ownership of exploration, development and production rights. Under section 7 of the Petroleum Revenue Management Act, revenue receipts also include revenue due from the direct or indirect participation of the Republic in petroleum operations, including the carried and additional participating interest.

[5] Supra note 2, Section 3(5).

with state revenue from other sectors, a separation of petroleum revenue from other revenue accruing to the government will give a clear picture of what the state derives from its petroleum exploration and production,[6] which will enhance the process of accountability.

There are provisions for the transparency and accountability of petroleum receipts. For the purpose of transparency, it is required from the Minister to publish petroleum receipts[7] in the Official Gazette. This provision is a key means of ensuring access to information on petroleum management in the country. When citizens are able to assess how much the country receives from its petroleum industry, they can demand proper accountability from the government. The question is whether a default on the part of the Minister to carry out the obligation is actionable and whether there are checks and balances in place to ensure the performance of the obligation as stated under the law.

The Stabilisation Fund was created to cushion the impact of unanticipated petroleum revenue shortfall on public expenditure capacity.[8] In essence, its purpose is not to build up funds for the future, but to avoid the effects of fluctuations in mineral revenue. A percentage of the petroleum revenue is earmarked for this Fund, as determined by Parliament.

The need to provide for future generations is considered under the Ghana Heritage Fund. This Fund is a recognition of the finite nature of petroleum revenue. The purpose of the Fund is to provide an endowment to support development for future generations when petroleum reserves have been depleted.[9]

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[6]At the time of writing this paper, there has been information that the country is considering enacting a Mineral Development Fund Act which is believed to have similar features to the Petroleum Revenue Act. This is laudable.

[7] *Supra* note 2, Section 8.

[8]*Supra* note 2, Section 9.

[9] *Supra* note 2, Section 10.

This is laudable on the grounds of inter-generational equity. The Fund is also used to absorb excess petroleum revenue.[10]

One key feature of the Act consists of the rules on withdrawals from stated funds. This is one key provision lacking under the regime in Alberta. Norway's regime provides specific rules on withdrawals from the Global Pension Fund. These rules insulate the Fund from the government's general revenue. Under Ghana's Petroleum Management Act, transfers from the Stabilisation Fund are only carried out for alleviating shortfalls in actual petroleum revenue. Where petroleum revenue collected in any quarter falls below one quarter of the Annual Budget Funding for the financial year, there are allowable withdrawals from the Stabilisation Fund.[11] Section 12 of the Act provides in precise terms how transfers are to be made in the event of a shortfall. The allowable withdrawal shall be the lesser of (a) seventy-five percent of the estimated amount of the short-fall for that quarter; or (b) twenty-five percent of the balance standing to the credit of the Ghana Stabilisation Fund at the beginning of the financial year.[12] This provision ensures checks on government withdrawals from the Fund and prevents the Fund from being raided by the government.

Revenue from the Heritage Fund can only be transferred by a resolution of Parliament. The accrued interest to the Heritage Fund may be transferred 15years after the commencement of the Act.[13] This provision may be criticized for having the tendency to eventually dwindle the growth of the Fund. Provisions are made for the consolidation of the Stabilisation Fund and the Heritage Fund, within one year after petroleum reserves are depleted, into a single Fund to be

[10] "Excess revenue" is where petroleum revenue collected in each quarter of any financial year exceeds one-quarter of the Annual Budget Funding Amount of the financial year(see section 23 of the Act).

[11] *Supra* note 2, Section 12.

[12] *Supra* note 2, Section 12(2).

[13] *Supra* note 2, Section 10(4).

known as the Ghana Petroleum Wealth Fund after which the Ghana Stabilisation Fund and the Ghana Heritage Fund shall cease to exist.[14]After petroleum reserves are depleted, the Act allows for the earnings on the Ghana Petroleum Wealth Fund to be transferred to the Annual Budget Funding.[15] As at now there is no provision on how the corpus of the petroleum revenue allocated to the Petroleum Wealth Fund should be spent. Section 21 of the Act provides in detailed terms specific rules on the use of the Annual Budget Funding amount.

2.2 Assessment of the Fund

Ghana has taken the right path in managing her petroleum revenue. From a legislative perspective, the Ghana Petroleum Fund Act may be said to be one of the most comprehensive and well drafted laws in the domain of petroleum revenue management. This may be attributed to the benefits the country has derived from similar legislation in other jurisdictions to guide the enactment.

One key provision that is commendable is the clear definition of the scope of petroleum receipts. Given such a provision, there is no doubt over the revenue which must be transferred into the Petroleum Fund. It fetters the governments' discretion in deciding what types of revenue from petroleum activities are deposited into the Fund. This is a key provision for the successful management of the Fund.

In addition, the Act provides for spending rules relating to the Funds. This is laudable. The success of resource funds mainly depends on the rules regulating deposits and withdrawals from them. Without any regulations to restrain the discretion of the government from excessive transfers from the Fund, it would end

[14] *Supra* note 2, Section 20.

[15] The "Annual Budget Funding Amount" is the amount of petroleum revenue allocated for spending in the current financial year budget. See section 61 of the Act.

up being part of overall government revenue used in financing the country's budget expenditure, which would defeat its purpose.

In addition to these spending rules, the Act makes provisions for some specific activities that Fund revenue cannot be used for. In general, borrowing against the Petroleum Holding Fund with the Fund used as collateral for debts, guarantees, commitments and using the Fund to provide credit for the government, public enterprises and private entities are prohibited under the Act.[16] These provisions, if strictly applied, will safely guide the Fund away from been used to finance budget deficits and other government borrowing. In addition, it will regulate, constrain, limit and control government spending, since the Fund's revenue will not be available to finance budget deficits.

Another key provision which is commendable from the perspective of transparency and accountability is the provision regarding the publication of petroleum revenue receipts by the Minister. Citizens have the power to hold their leaders accountable when they have access to information that would help develop constructive opinions. Readily available information bolsters accountability. To further enhance transparency, the Bank of Ghana, the body responsible for the day-to-day operational management of the Fund, is required to present a quarterly report to the Minister and the investment Advisory Committee on the performance and activities of the Funds. There is also the requirement for the report to be made available to the public through national daily newspapers. This provision will help citizens determine the effective and efficient use of the Funds. However, the Minister is given the discretion to declare some reports as confidential. It must be stated that this provision undercuts the transparency and accountability principles in the Act.

An evaluation of the Act will reveal less participation from citizens in the form of direct benefits. Countries like Alaska, Brazil and Norway have been able

[16] *Supra* note 2, Sections 5 and 41.

to sustain their resource funds partly because of the participation of their citizens in fund revenue. Alaska has distributed dividends from earnings on oil revenue investments directly to eligible residents since 1982. Norway has linked its oil receipts to pension payments and Brazil to the education and health sector. In addition, Mongolia has used its mining income to fund a child benefit programme.[17] Todd has noted that beyond serving as a powerful and proven policy intervention, cash transfers may also mitigate the corrosive effect that natural resource revenue often has on governance.[18] This will help build public support for the sound management of the Fund and reduce the risk of poor governance. Where benefits are generally of a national character, citizens do not clearly show a strong interest in holding their leaders accountable for the efficient management of such benefits.[19] Nevertheless, cash transfers do not necessarily have to do with direct payments to eligible residents, as in the case of Alaska.

Indeed, it is doubtful whether such an approach will be beneficial in the context of Ghana. Such a system is not only difficult to implement and operate but will also negatively affect the government in an era of unfavourable oil prices.[20] Another factor that would make such a system unworkable in Ghana is the absence of comprehensive and up-to-date information on residents, their location, etc. However, transfers targeted towards specific entities, as in Norway and Brazil, may be a prudent means of managing the country's petroleum revenue.

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[17] See generally: Todd Moss, *Oil to Cash: Fighting the Resource Curse through Cash Transfers*, online: OGD Working Paper 273. Washington, DC: Center for Global Development<http://www.cgdev.org/sites/default/files/1424714_file_Oil2Cash_primer_FINAL.pdf>

[18] Todd Moss, *Oil to Cash: Fighting the Resource Curse through Cash Transfers*, online: OGD Working Paper 273. Washington, DC: C enter for Global Development<http://www.cgdev.org/sites/default/files/1424714_file_Oil2Cash_primer_FINAL.pdf> at 2.

[19] See: Ivor Kolstad and Arne Wiig, "Is Transparency the Key to Reducing Corruption in Resource-Rich Countries" (2009) 37:3 World Development 524-525, at 521.

[20] See generally: Jonas Hjort, "Citizen Funds and Dutch Disease in Developing Countries" (2006) 31 Resource Policy 183-191.

Administering such a system is comparatively easy. Ghana has taken the right path by allocating some petroleum revenue into the Annual Budget Funding Amount. The provisions for the use of the Annual Budget Funding Amount provides equitable distribution of petroleum revenue for both current and future generations. However, the categories of programmes or activities to which the amount may be used for is too wide to make any significant impact.[21] In essence, the amount can be used for most governmental programmes and activities. This does not provide the needed public participation.

3. Organisational and Institutional Framework for Managing Petroleum Revenue in Ghana

At present, there are a number of state institutions involved in the management of Ghana's petroleum revenue. These include Parliament, the Ministry of Finance and Economic Planning, the Ghana Revenue Authority, the Bank of Ghana, the Ghana National Petroleum Company, the Auditor-General, and the Office of the President. The Petroleum Act also establishes the Investment Advisory Committee and the Public Interest and Accountability Committee. These Committees are assigned various roles and functions under the Act. The management of the Petroleum Fund is the obligation of the Minister, but, the Bank of Ghana is responsible for the day-to-day operational management of the Petroleum Fund. Although the Act provides for the Minister to make regulations for the effective performance of the Act, there is currently no such legislation. To some extent, Parliament is given a supervisory role in the form of reviewing reports submitted by the Minister.

The complexity of the institutional arrangements – i.e. the existence of too many institutions with no clear rules for the coordination or mediation of conflicts - poses the risk of duplication of efforts. Concern has been raised whether this organisational and institutional arrangement is the best model for Ghana. Given

[21] *Supra* note 2, See section 21.

the experience the country has in managing its revenue, including revenue from its abundant natural resources, it is prudent for the country to consider delegating such managerial functions to a body or an entity which is separate and distinct from the government. The structure of the management of the Fund must conform to the concept of trust, where it is managed by disinterested persons. From the perspective of legal personality and in its administrative structure, there must be a boundary between the government and the Fund. This bolsters the limitation on governments' discretion to either increase or reduce the Fund. The parliamentary system allows for the monitoring and supervision of executive functions under the Constitution and the Petroleum Revenue Management Act, but this supervisory capacity might be weakened if a single party dominates the legislature. In the case where the Minister is simultaneously a parliamentarian, it is doubtful whether members will be diligent in performing the required supervisory role over one of their number. Saskatchewan has recommended a body corporate to be established under the laws of Saskatchewan for the management of its Future Fund. This is to make the Fund as an entity which remains separate from the government and whose internal organisation has the capacity to participate competitively in the world of wealth fund investment.[22] The Alaska Permanent Fund Corporation manages the assets of the Alaska Permanent Fund, but the expenditure of Fund income is the responsibility of the Legislature.[23] This means separating the government from the Fund. These two arrangements seem to be the right institutional framework for the effective management of petroleum revenue in the context of Ghana.

In the light of the preceding, one can argue that Ghana's regulatory framework for managing oil revenue is relatively effective from a legislative

[22]See: Peter MacKinnon, "A Future Fund for Saskatchewan: A report to Premier Brad Wall on the Saskatchewan Heritage Initiative" 2013, at 10. Alaska has in place an equal regime in terms of entity structure for its Permanent Fund.

[23] Alaska Permanent Fund Corporation, online: SWF Institute<http://www.swfinstitute.org/swfs/alaska-permanent-fund-corporation/>.

perspective. Compared to similar legislation on natural resource revenue funds, the regime is comprehensive and contains strong transparency and accountability principles. If the provisions are strictly applied and implemented, the country will have good prospects for its petroleum industry, but as El Anshasy has rightly noted:

> "Natural Resource Funds in many oil-dependent countries reveal that mere existence of a fund (or regulation) per se does not guarantee good management of resource wealth. Weak political will and factionalized institutions provide the environment for the strictest fiscal rules to be breached. So for a fund to help check government spending pressure, political actors' incentives need to be altered to ensure commitment to fiscal prudence".[24]

The key challenge for Ghana is to eliminate revenue leakage. The next sections will look at the issue of governance and institutional quality in resource revenue management. They will also pay attention to the issue of transparency, accountability and corruption in the effective management of petroleum revenue in the country.

4. Good Governance and Institutional Quality in Managing Ghana's Oil Revenue

One of the key challenges for the effective management of oil revenue in Ghana is the issue of good governance and the quality of the political institutions. Governance and political institutions can contribute either positively or negatively to resource revenue management, but unfortunately, more of the negative side is exhibited in developing nations. These two factors play major roles in determining the success or otherwise of a revenue Fund.

[24] AA El Anshasy, "Oil Revenues, Government Spending Policy, and Growth" (2012) 12:2 Public Finance & Management 120-146 at 141.

The existence of rules alone will not ensure the effective management of a country's resources, although their impact cannot be discounted.[25] Often overlooked is the distinguishing feature that governance plays in the effective management of a country's resources.[26] Good governance and institutional quality have a correlative effect on the management of these finite resources. Ghana has been a major pillar in gold production, both before and after independence and is currently the second largest gold producing country in Africa. However, the current state of the Ghanaian economy does not suggest there has been a significant positive impact from the minerals and mining industry.[27] Harford and Klein have argued that strong political will and strong institutions should be adequate for ensuring that the economics of resource revenue are properly managed.[28] Norway's regime is a testimony to this. From a legislative perspective, the *Petroleum Revenue Management Act* and the institutions created should ensure that Ghana does not succumb to the resource curse. However, this claim cannot be made assertively, given the country's experience in managing its revenue potential.

Without the necessary commitment from politicians to manage the country's petroleum resources for the benefit of all citizens, the *Petroleum Revenue Management Act* may at best qualify as one of many laws in our books. Over the years, the country has shown weaknesses in implementing some of its remarkable legislation.

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[25] *Ibid*, at 141.

[26] See generally: J Seigle, "Governance Strategies to Remedy the Natural Resource Curse" (2009) 57 International Social Science Journal 1.

[27] The 2012 UN Development Index published in 2013 placed the country relatively low, ranking it at 135 out of 186 countries.

[28] T Harford and M Klein, "Aid and the Resource Curse: How can Aid be Designed to Preserve Institutions?" (2005) Public Policy for the Private Sector, Note Number 291; also cited in Rhuks Ako and Nilopar Uddin, *Good Governance and Resource Management in Africa* in Francis Botchway, ed, *Natural Resource Investment and Africa's Development* (Edward Elgar Publishing, 2011) at 26.

The law and practice of procurement is illustrative of the dichotomy between law on the books and law in practice. In 2003, the government passed the *Procurement Act of Ghana*.[29] This was to ensure the effective awarding of contracts in a transparent manner. However, the majority of contracts awarded in the country do not follow the procurement process.[30] Speaking on issues relating to the Act, Nicholas Ampofo, Acting Head of Procurement, expressed the view that if the Act is allowed to work without perceived manipulation, it will be one of the most effective tools with which to win the battle against corruption[31]. However, circumventing the rules has been more the norm than the exception. Commenting on the law, the chairman of the Africa Parliamentarians' Network Against Corruption (APNAC), Osei Kyei-Mensah-Bonsu, has stated that in spite of the government's efforts, some public officials have continued to circumvent the country's procurement regulations for their own gain.[32]

Political interference with the procurement process is a big challenge to the implementation process. It is believed that this is because procurement practice continues to favour those connected with whichever government is in power. Under the *Petroleum Revenue Management Act*, the Parliamentary Public Interest and Accountability Committee (PIAC) has expressed deep concern over the government's failure to utilise the country's petroleum revenue according to the Act. The Committee observed that in 2012, the government did not implement

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[29] Act 663.

[30] See generally: Collins Ameyaw, Sarfo Mensah and Ernest Osei-Tutu, *Challenges Facing the Smooth Implementation of Ghana's Public Procurement Law, 2003, Act 663*, online: Academia.edu< http://www.academia.edu/3845925/Challenges_facing_smooth_implementation_of_public_procurement_law_in_Ghana>

[31] Nicholas Ampofo, *Fighting Corruption with the Public Procurement Act, from a Practitioner's Perspective*, online: Public Procurement Authority: Electronic Bulletin Jul-Aug 2013<http://ppaghana.org/documents/Bulletins/PPAE-BulletinJulAug2013Final.pdf>

[32] Dela Russel Ocloo, *Enforce Laws on Corruption-APNAC,* online: Morden Ghana< http://www.modernghana.com/news/335021/1/enforce-laws-on-corruption-apnac.html>

the plan for petroleum revenue allocation which had been approved by Parliament in the 2012 national budget in respect of the Annual Budget Funding Amount (ABFA).[33] It has also been reported that in 2012, Ghana overran its targeted budget fiscal deficit by almost one hundred per cent.[34] At first sight, this may appear to relate to weaknesses in governance, but it also exhibits a lack of institutional quality in the country. As Ako and Uddin have observed, accountability in the context of good governance simply refers to a framework which is available to ensure that the actions and decisions of public officials are supervised.[35] Institutions in Ghana are weakened by deep-seated nepotism and favouritism. Such factionalised institutions makes it possible for almost every law to be breached in the country. Comparing the performance of selected resource rich countries, Seigle observes that governance type is a defining feature in determining whether resource wealth is a curse or a blessing.[36]

Without the right fiscal policies and commitment to fiscal rules, Ghana's petroleum wealth may retard rather than foster growth and development in the country. Government policies must aim at how petroleum revenue may assist with the sustainable development of the economy. With the right policies and fiscal discipline, the country can escape the Dutch disease and the resource curse. Laryea has stated that appropriate links and synergies with other sectors of the economy should be identified, created and supported to optimise economic and

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[33] *Govt failed to use petroleum revenue as specified by Act – Report*, online: Graphiconline < http://www.ghanaweb.com/GhanaHomePage/NewsArchive/artikel.php?ID=292796>

[34] Ekow Quandzi, *Ghana overruns budget fiscal deficit target almost 100%,* online: Ghana Business News < http://www.ghanabusinessnews.com/2013/02/15/ghana-overruns-2012-budget-fiscal-deficit-targe/t-almost-100>

[35] Rhuks Ako and Nilopar Uddin, Good Governance and Resource Management in Africa in Francis Botchway ed, Natural Resource Investment and Africa's Development (Edward Elgar Publishing, 2011) at 21.

[36] J Seigle, "Governance Strategies to Remedy the Natural Resource Curse" (2009) 57 International Social Science Journal 1, 48.

social benefit outcomes from the investment.[37] To this, it is added that politicians must exhibit commitment in administering resource wealth to benefit all Ghanaians.

5. Transparency and Accountability in Managing Ghana's Oil Revenue

Transparency is necessary for curbing many of the dysfunctions of resource rich, developing countries. Norway has effectively managed its petroleum revenue through transparency and accountability principles. Transparency is one means of increasing the amount of information in the public domain concerning the revenue received and managed by governments on behalf of citizens. Providing such access will help citizens hold governments more accountable. It also curbs the opportunities politicians may have for political corruption and mismanagement.[38] The Extractive Industries Transparency Initiatives (EITI) have rightly observed that transparency strengthens accountability and good governance, as well as promoting greater economic and political stability.[39]

Access to information limits corruption. This is why the transparency provision, through the reporting system under the *Petroleum Revenue Management Act* is remarkable. However, as Kolstad and Wiig have stated, transparency is insufficient in itself, and needs to be complemented by other policies, such as accountability.[40] Accountability is used here in a broad context to include not only the obligation to explain, but also to justify conduct. Shoxson has argued that transparency is not enough to enable citizens to call their leaders

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[37] Emmanuel Laryea, Natural Resource Investment and Africa's Development in Francis Botchway ed, Natural Resource Investment and Africa's Development (Edward Elgar Publishing, 2011) at 120 .

[38] See: Catharina Lindstedt and Daniel Naurin, "Transparency is Not Enough: Making Transparency Effective in Reducing Corruption" (2010) 31 International Political Science Review 304-305, at 301.

[39] See EITI, Benefits for Implementing EITI, <http://eiti.org/eiti/benefits>.

[40] See generally: Ivor Kolstad and Arne Wiig, "Is Transparency the Key to Reducing Corruption in Resource-Rich Countries" (2009) 37:3 World Development 521-532.

to account. He cites as an example, Angola which lies outside the EITI, and which has published significant data about its oil industry revenue, while denying its citizens much say in how the money is spent.[41]

The *Petroleum Revenue Management Act* imposes obligations on designated individuals and named entities to perform assigned functions. These obligations are believed to bolster the sustainable management of the Funds under the Act. The issue is whether these provisions are legally justiciable or enforceable. The Act provides for specific offences where a term of the Act is breached. A person who fails to comply with any obligation to publish information provided for in the Act…commits an offence.[42] Other offences, such as misappropriation of the Petroleum Funds, fraudulent dealings and breach of confidentiality, are explicitly stated under the Act.[43] It is arguable whether these provisions amount to the tools required for citizens to demand accountability. To enforce transparency and accountability, there should be avenues for the imposition of penalties.[44] Citizens must be able to offer their judgments on information received.

The possibility of sanctions of some kind is a constitutive element to good accountability. This was noted by Bovens, who stated that "the possibility of sanctions - not the actual imposition of sanctions - makes the difference between non-committal provision of information and being held accountable".[45]

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[41] Nicholas Shaxson, "Oil, Corruption and the Resource Curse" (2007) 83:6 International Affairs 1123, at 1134.

[42] *Supra* note, at section 50.

[43] *Supra* note 2, at section 58.

[44] See generally: Mark Bovens, "Analysing and Assessing Accountability: A Conceptual Framework" (2007) 13 European Law Journal 447.

[45] Mark Bovens, "Analysing and Assessing Accountability: A Conceptual Framework" (2007) 13 European Law Journal 447, at 451.

To enforce transparency and accountability under the Petroleum Revenue Act, some attention must be focused on strengthening the capacity of citizens, not only to receive the available information, but also to act upon it. Citizens must have the power to compel officers to disclose and publish information in a transparent and accountable manner. Appropriate forums should be created where citizens can openly question and seek answers from the appropriate officers on the management of the country's petroleum revenue. A lack of transparency and accountability will breed corruption.

6. Corruption and the Management of Oil Revenues

Corruption is pervasive and spreads into the formulation, administration and implementation of natural resource policy. Without the right legal framework, revenue from petroleum activities may get lost in a maze of secret payments and shady deals. Corruption deprives citizens of the real benefits from the development of natural resources in their countries. Unscrupulous leaders pocket resource revenue to benefit themselves and their cronies, instead of investing in vital services that would benefit the general public. Studies have shown that natural resource wealth increases corruption in many different ways.[46] Given the existing regime in Ghana, it is arguable whether the country can effectively fight corruption to increase benefits for citizens from the development of the country's hydrocarbons.

A review of the country's legislative and institutional framework indicates that the country has structures in place that can be used to fight corruption. What the country lacks is the implementation and enforcement of these laws. An analysis of the anti-corruption legislation in place in the country reveals that, to a large extent, they meet international standards.[47] However, as Ameyaw, Mensah

[46] See generally: Sambit Bhattacharyya and Roland Hodler, "Natural Resources, Democracy and Corruption" (2010) 54 European Economic Review 608-621.

[47] Joe Ghartey, *Comparative Analysis of Anti-Corruption Legislation in the Republic of Ghana with the United Nations Convention against Corruption and the African Union*

and Osei-Tutu observed, there is no concrete evidence that Ghana has made serious gains through the enactment of legislation targeted at corruption.[48] Ghana was placed 63rd in the 2013 Corruption Perception Index,[49] while the country was ranked the third most corrupt nation by Gallup in 2013.[50] According to a recent pronouncement of the Supreme Court of Ghana, in a case where the government claimed it was fraudulently deceived to part with 51 million Ghana cedis by a business man, Alfred Agbesi Woyome, the Court, per Dotse JSC, described the phenomenon as 'create, loot and share'.[51] A former Attorney General and Minister of Justice, Martin Amidu, stated that there are "hard core criminals in our society today [who] have made it a habit to hold paid membership cards of major political parties in the Republic as an unconstitutional insurance against crime and criminal prosecutions".[52]

Corruption increases when such dishonest acts are carried out with impunity. Institutions in Ghana which are mandated to fight corruption are steeped in nepotism and favouritism. Drawing comparisons with countries like the US, the outspoken Leader of Government Business in Parliament, Dr. Benjamin Kunbour, has stated that such societies have developed their laws to

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Convention on Preventing and Combating Corruption, online: <http://legal.un.org/avl/documents/scans/GhanaAnti-CorruptionManual.pdf?teil=II&j>.

[48] Collins Ameyaw, Sarfo Mensah and Ernest Osei-Tutu, *Challenges Facing the Smooth Implementation of Ghana's Public Procurement Law, 2003, Act 663*, online: Academia.edu< http://www.academia.edu/3845925/Challenges_facing_smooth_implementation_of_public_procurement_law_in_Ghana> at 240.

[49] See: *Corruption Perception Index 2013*, online: Transparency International< http://cpi.transparency.org/cpi2013/results/>

[50] See: <http://www.gallup.com/poll/165476/government-corruption-viewed-pervasive-worldwide.aspx>.

[51]See: *Amidu v Attorney-General, Waterville & Woyome,* Writ No. JI/15/2012 14th June, 2013 (Unreported).

[52] Martin ABK Amidu, *Fighting Graft and Corruption under the National Democratic Governments of Ghana*, online: ModernGhana<http://www.modernghana.com/news/500877/1/fighting-graft-and-corruption-under-the-national-d.html>.

work impartially, irrespective of who is involved. This, he said, cannot be said of Ghana where the standards for upholding laws and meting out punitive measures are lowered when it comes to relatives.[53]

Institutions mandated under the laws of Ghana to fight corruption include Parliament, the Attorney General, the Commission on Human Rights and Administrative Justice, and the Judiciary.[54] In Ghana, corruption is a criminal offence and prosecuted accordingly under the authority of the Attorney General. The Attorney General has the power to determine who shall be prosecuted, as well as who should or should not be brought to trial.[55] This power is more or less immune from the public accountability system, whether or not the exercise is an abuse of the discretion. Commenting on this Constitutional arrangement, Hobbs rightly observes that the discretion given to the Attorney General by law or through the expansion of administrative practice, is so broad and unrestricted that if wished to do so, he could easily dominate the political life of the country.[56] It is within this unbridled discretion that the evil lies. It is evident that politics in Ghana have not provided an appropriate check on the Office of the Attorney General, thus hindering it at times from doing what needs to be done in the collective interest of the nation. Given that the Attorney General is a Minister and may be relieved of his position at any time or at the whim of the President, it is doubtful whether he can carry out work independently. The apparent conflict which arises where an Attorney General is also a Government Minister of Justice

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[53] *Majority Leader Clashes with President over code of ethics for public officers*, online: myjoyonline.com <http://www.myjoyonline.com/politics/2013/November-25th/majority-leader-clashes-with-president-over-code-of-ethics-for-public-officers.php?print=1>.

[54] There are other institutions, like the police service and the Economic and Organised Crime Unit Office (EOCO), assisting the Attorney General.

[55] See Article 88 of the 1992 Constitution of Ghana and section 54 of the Criminal Procedure code, 1960 (Act 30).

[56] See SE Hobbs, "Prosecution Bias: An Occupational Disease" (1949-1950) 2 Ala. L. Rev. 40.

must be scrutinised to see whether it is the best for the country's democratic system.

Under the Constitution, Parliament is given a supervisory role over all executive actions. However, factionalism has weakened this Constitutional mandate. Speaking generally on the country's failure to fight corruption, Professor Ayittey, a retired professor of economics at the American University, blamed Parliament for corruption in Ghana. In his justified opinion, institutions in Ghana are weak and dysfunctional while Parliament which act as a rubber-stamped, has been made subservient to the executive.[57] Where the government of the day has a majority in Parliament, the supervisory responsibility is ultimately defeated. This is compounded by the fact that under the Constitution, the majority of government Ministers must come from Parliament.[58]

If the country is to ensure petroleum revenue benefits all citizens, it is imperative to create more avenues for citizens to hold public officials to account. This will curb deliberate and dishonest petroleum revenue leakages to public servants and private individuals. The fight against corruption in Ghana has moved beyond institutional arrangements. Government pronouncements on corruption over the years have been more about rhetoric than adherence. Anti-corruption legislation must be modeled to include some expectation of private prosecution. The role of citizens and civil society organisations should be well emphasised. As Roland rightly notes, "if we find the job not being done by public prosecutors, then citizens have the right and duty to initiate private prosecution".[59] This is

57 Professor Ayittey, *Blame Parliament for corruption in Ghana,* online: Ghana Business News<http://www.ghanabusinessnews.com/2013/11/08/blame-parliament-for-corruption-in-ghana-professor-ayittey/>.

58 See Article 78(1) of the 1992 Constitution of Ghana.

59 Jon Roland, *Let's Revive Private Criminal Prosecution,* online: <http://www.constitution.org/uslaw/privpros.htm>.

because, in most cases, institutions which are trusted and mandated to fight corrupt practices are not able to live up to expectations.

7. Conclusion

This chapter has examined the regulatory and institutional framework for managing oil revenue in Ghana. The examination confirms that, using the Norwegian model as a basis, Ghana's regulatory framework may be an effective means of managing its oil revenue. However, the regulatory framework is currently insufficient for successfully managing its oil revenue. The chapter has also highlighted factors that may promote the successful and efficient maximisation of benefits.

The next chapter will set out recommendations and provide the conclusion to the thesis.

CHAPTER SIX: CONCLUSION

1. Introduction

This thesis assessed the framework for determining the government's share of petroleum revenue in Alberta, Norway and Ghana. In addition, it examined how petroleum revenues are managed in these jurisdictions. The analysis focused on how governments are able to combine fiscal regimes in order to effectively participate in economic rent from natural resource development and on how this revenue is used. The thesis considered two core elements of the fiscal regime: the tenure granting system and participation through royalties and taxes.

With regard to the tenure system and the regulatory framework for determining government's share of petroleum revenues, it was revealed that, based on specific constraints and policy rationales which are peculiar to the jurisdictions involved, each regime (i.e. the tenure granting system and the framework for the determination of government share of petroleum revenue) seems to be effective in each jurisdiction. However, there are still measures that could be adopted to increase the governments' share of resource revenue. The study shows that Alberta and Norway's regimes, although not impeccable, have enabled the two jurisdictions to maximise their benefits from petroleum resources. This offers some lessons for Ghana's nascent petroleum industry through the adaptation of those aspects of Alberta and Norway's framework which are effective in revenue generation.

In terms of petroleum revenue management, Norway's success story can serve as a guide for Ghana. Norway has successfully managed its petroleum revenue using the Petroleum Pension Fund. The analysis reveals that although rules may be a *sine qua non* in the successful management of resource funds, governance and political institutions play equally significant roles in the success of a resource fund. These factors are predominately lacking under the Alberta model. In both legislation and governance, Alberta has failed to effectively

manage its petroleum revenue using the Alberta Heritage Fund. In this regard, one may argue that Alberta has something to learn from Norway. In terms of legislation, Ghana's regulatory framework for managing its petroleum revenue is comprehensive. However, the country's history of implementing and enforcing its revenue management laws has been unsatisfactory. To overcome this, aspects of Norway's framework that are effective for managing petroleum revenue are recommended for Ghana.

In making this recommendation, I am not unmindful of the differences that exist between these countries. Geological potential, the ownership of resources, governance and political institutions, dependence on petroleum revenue, state participation in the development of petroleum resources, and regulatory bodies are some of the significant areas that differ between jurisdictions. Accordingly, for one jurisdiction to be able to positively make use of measures from another jurisdiction, it will require some modification to suit the peculiar conditions of the 'adoptee' country.

Lessons Ghana Can Derive from Alberta and Norway

Alberta and Norway have effectively managed their fiscal regimes to accrue a fair share of the revenue from natural resource development. If Ghana is able to effectively adopt some of their measures, Ghana will attain some level of sustainability in its petroleum development. In addition, specific constraints and conditions peculiar to Ghana will require certain provisions that may not be found in these two regimes. Some actions that Ghana can take to effectively derive a fair share from the development of its hydrocarbons are considered below.

First, Ghana should adopt openness and transparency in the evaluation and decision making process with regard to its tenure system. As has been mentioned, Ghana's resource disposition system may be one ideal means given the conditions peculiar to the country. However, the system can still be improved to eliminate the potential of corruption and political lobbying which characterise the

administrative system of resource disposition. Government should encourage provisions that mandate the Ministry of Petroleum and Energy Resources to publish documents on the bidding of petroleum contracts. Such a system will help in controlling and structuring the exercise of discretionary powers. This will give greater transparency and help eliminate potential corrupt practices the system is prone to.

Second, section 20 of PNDC Law 84 and section 6 of PNDC Law 188 should be amended. Section 20 of PNDC Law 84 makes Ghana's royalty rate subject to the terms of the petroleum agreement, whiles section 6 of PNDC Law 188 makes the tax rate subject to the petroleum agreement. Such a provision provides an avenue for underground dealings and corruption. This is particularly so because Ghana's tenure system is discretionary/administrative. As mentioned, the system is less transparent with no disclosure on decision making. The system has been prone to corrupt practices, and those provisions do not promote uniformity or standardisation. The current system is likened to Alberta's oil sands royalty regime that existed before the generic system was adopted in 1997. Although Alberta still grants discretion to the Minister and the Lieutenant Governor in Council to vary royalties, such variations are exercised under regulations. This creates standardisation and predictability. Ghana may in this respect adopt the system practised in Alberta. Royalty reductions, and increases must be defined in legislation.

Third, PNDC Law 84 should be amended, or alternatively a separate law should be passed, regulating the reclamation of disturbed lands. The issue must be considered when evaluating the work programme submitted by investors. Writing on the reclamation system in Alberta, Professor Percy declared that as part of the effort to protect the environment, applicants for major projects should be required to include an environmental impact assessment (EIA) in their Energy Resources Conservation Board (ERCB) applications. He further mentioned that the EIA must include an outline of the environmental impact a project is expected

to have, as well as a plan detailing how the company intends to reclaim the land once operations have ceased.[1] Such a provision will not only benefit the state environmentally, but will also return disturbed lands in an economical state to their owners after the petroleum projects have been completed.

Fourth, legislation similar to Norway's disposition of petroleum rights, where the exploration and production of petroleum can co-exist with other activities should be enacted in Ghana. Alberta's split title regime is appropriate if well managed, but may not be the ideal one for Ghana, given Ghana's regulatory potential.[2] A modification of the regime, as applied in Norway, is highly recommended for Ghana. Petroleum should not be developed at the expense of similar important natural resources. The PNDC Law 84 should be amended to make it possible for petroleum rights to co-exist with rights in other natural resources and to some extent, for surface rights holders to benefit from their land if their activities do not interfere with petroleum operations.

Fifth, PNDC Law 84 should be amended to consider some upfront payments for the acquisition of exploration licences. The approach of not requiring an exploration licence was adopted at the time when Ghana's petroleum reserve potential was uncertain. Upfront payment will not only ensure risk-free revenue for the government, but will also secure the commitment of investors to explore. Such a provision will increase the overall cost of production and should be considered as an allowable cost in determining the corporate profit of a company and taken into account in taxing corporate profits.

Six, compared to Norway and Alberta, Ghana's 30 year duration for production rights is relatively long. Although this is investor-friendly and permits

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[1] DR Percy ed, *Basic Oil & Gas Law: Cases and Materials*, 2014, ed, looseleaf (Alberta: Faculty of Law, University of Alberta, 2014) p 10.

[2] Alberta's gas over bitumen policy has been the least successful. Although the idea of split title is beneficial to the government in terms of revenue generation the implementation of the policy did not yield the anticipated results.

investors to implement their work plan, such a provision may be disadvantageous to the state if not regulated. Accordingly, it is recommended that the PNDC 84 Law should be amended to include delay rental provisions. This will not only give producers incentives to produce, but will also ensure revenue for the government where there is delay in developing productive lands.

Although, Norway's regime for managing its oil revenue is not foolproof, the country has successfully managed its petroleum revenue using the Petroleum Pension Fund. As has been identified, the regulatory framework plays an important role in the successful management of the Petroleum Pension Fund. In addition, the role of governance, political institutions and civil society organisations cannot be discounted. Furthermore, transparency and accountability have positively influenced the Norwegian system. If Ghana is able to effectively adopt some of the measures undertaken by Norway, the country will be able to achieve the effective management of its petroleum revenue under petroleum funds. In addition, the reasons underpinning the failure of the Alberta Heritage Fund serve as a lesson for Ghana. Some actions that Ghana can take to effectively manage its petroleum revenue are discussed below.

First, it is recommended that an independent body be mandated to manage the Ghana Petroleum Fund. Such a body must be constitutionally set up as independent of the government. For such a body to function effectively, its activities, including the appointment and tenure of its officers, must be constitutionally defined. This will ensure that officers do not succumb to political pressure from the government.

Second, section 21 of the Petroleum Revenue Management Act should be amended to consider designating the Annual Budget Funding Amount for a particular purpose. Section 21 allows the ABFA to be used to sponsor projects and activities that would have normally come from government budgeting of general revenues. The many projects/activities presents an accountability problem. It is difficult for the public to track the use of the amount and demand

proper accountability. One specific use of the ABFA, as in Norway and Mongolia, is highly recommended. This will assist citizens in making informed assessment on the usages of the Fund's revenue.

Third, Ghana can effectively manage its petroleum revenue if the country is able to prevent revenue leakages. Transparency is imperative in eliminating corruption with regard to Ghana's petroleum revenue management. Although the country has taken the right step in enacting some transparency provisions under the Petroleum Revenue Management Act, it can still go further by enacting provisions to bolster transparency and accountability. It is recommended that provisions be made which requires oil companies to publish revenue paid to the government. Such publications should not be a matter of company policy, but must be statutorily regulated. This will ensure transparency, aid citizens in making constructive assessment of how much revenue is received by the government and, enable citizens to demand proper accountability.

Fourth, although Ghana is a member of the EITI the application of EITI principles applies only to the mineral sector. It is recommended that Ghana adopts and implement the EITI principles for its petroleum sector. EITI principles must relate to both revenue generation and revenue management. In addition to ensuring an international level playing field for companies, publications under the EITI principles will provide a basis for international assessment of Ghana's transparency achievements.

Fifth, in other to increase citizens' participation in the management of petroleum funds, it is recommended that provisions must be made for citizens to demand accountability in the law courts. There must be clear provisions on what citizens can do if a term of the Petroleum Revenue Management Act is breached. This will help in reducing abuses of discretionary powers.

Sixth, the right granted to the Minister under section 49(3) of the Petroleum Revenue Management Act to declare certain information or data as

prejudicial and confidential should be revisited. To the extent that such confidentiality is required, the law should be specific in providing when such a right may be activated. Such wide discretion, if not regulated, will ultimately mean that the disclosure of information is at the whim of the Minister, thereby defeating accountability and transparency principles.

3. Concluding Remarks

This thesis examined the fiscal regimes and the legal framework for managing oil revenue in Alberta and Norway to determine how effective they are in ensuring that those jurisdictions receive the maximum benefit from their petroleum resources, and how Ghana can learn from these two jurisdictions. As revealed from the examination, the fiscal regime (the tenure granting system and the framework for determining governments' share of petroleum revenue) in both jurisdictions appears to be effective. Ghana can adopt to some of the provisions which makes the regimes effective, but it must do so bearing in mind the peculiar condition of each jurisdiction. In terms of petroleum revenue management Norway has effectively managed its petroleum revenue, whiles Alberta's petroleum revenue management under the Alberta Heritage Fund has been less successful. Ghana can learn from both jurisdictions by tapping the good provisions under the Norwegian model, while taking lessons from the reasons underpinning Alberta's unsuccessful story. While the recommendations in this thesis may not be impeccable, it is believed that their application will enable Ghana to effectively maximize its benefits from its petroleum resources. Ghana must manage its petroleum wealth for the benefits of present and future generation. Good governance and the quality of political institutions will play a major role if the country is to succeed.

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