

ASSESSING THE EFFECTS OF TAXATION ON THE MINING INDUSTRY

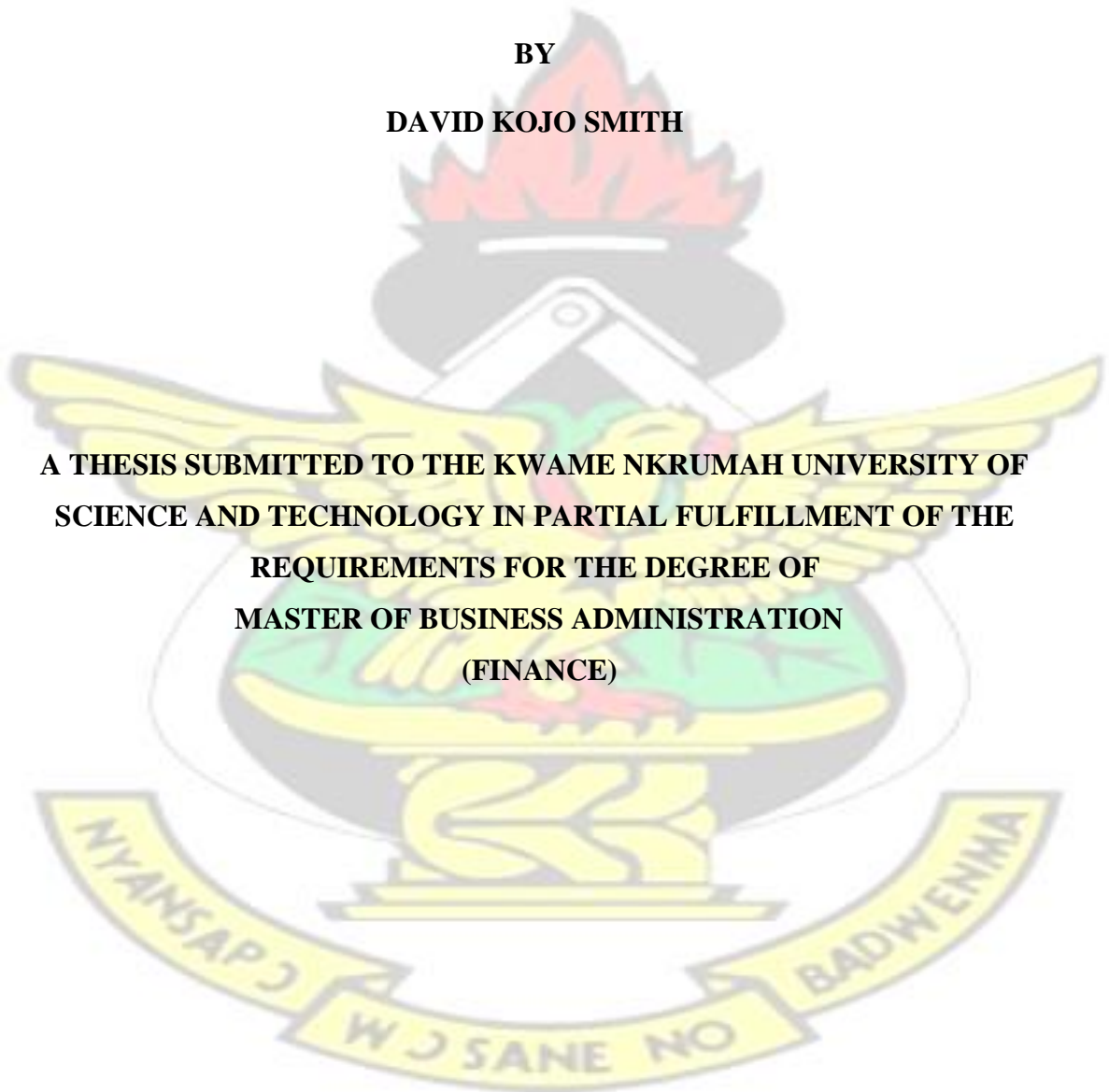
(A CASE STUDY OF ANGLOGOLD ASHANTI, IDUAPRIEM MINES)

KNUST

BY

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DECLARATION

I, David Kojo Smith, hereby declare that this thesis is my own work towards the Masters programme, and to the best of my knowledge, it contains no materials previously published by another person nor material which has been accepted for the award of any other degree of the University or any other university, except where due acknowledgement has been made in the text.

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DEDICATION

This work is dedicated to my mother, Alice Gifty Kittoe, for all her encouragement, prayers and support in bringing me to this level. I also dedicate it to my dear wife Mama Akose, my children, Derick Kojo Smith, Victoria Smith, Juanita Smith, Cindy Smith and Allswell Smith for their understanding, love, care and support in my academic pursuit.



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ABSTRACT

Ghana contributes significantly to the global gold production. It is the second largest producer of gold in Africa after South Africa and the 10th largest producer in the world.

As a result of Ghana's gold production capacity, mining companies in Ghana have contributed significantly to the economic development of Ghana over the years through the taxes and royalties they pay. While these taxes are expected to improve the revenue of government for developmental purposes, mining firms believe the current mining tax regime needs to be reviewed to reduce the burden on the already fragile industry. For instance, the Ghana Chamber of Mines has warned that the tax burden is making it unprofitable for the mining industry and is threatening its sustainability. Against this backdrop, the study sought to examine the effect of the current mining tax regime on the sustainability of the mining industry, especially in AGA. Both primary and secondary data were analysed. The study is a descriptive cross-sectional case study and exploratory design using quantitative and qualitative method. The study found that the amount of taxes paid by the mining firms has witnessed substantial decline due to rapid decline in global gold prices. The fall in gold prices, the study observed, has reduced the total revenue of the mining firms and hence the amount of taxes they are able to pay to the government. The study further found that the profitability of the AGA has declined tremendously due to the global fall in gold prices. The study also found that the current financial position is being worsened by the numerous tax burdens confronting the firm. The study recommends that the government should reduce the tax burden on mining firms since doing so will improve the financial performance of the mining firm and make it financially viable for them to continue operations.

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 Background to the Study

Mining is a cyclical industry, and investment in exploration and mine development follows these cycles. According to Singh, Koku and Balfours (2007), the mining sector's development is very important in relation to the development of the country's economy. Responsible mining can also initiate private sector development in areas where there are only few or none. Companies usually compare numerous development options internationally, and screen these options to obtain the best balance between risk and reward. The key factor determining investment decisions is the geological potential of a site, but it is strongly offset by fiscal and socio-political considerations, with the former including tax rates and the latter the stability of the tax system.

Taxes are one of the major revenue for a country in where taxes are collected from citizens, companies, investors and so on to generate economy. Taxation is one of the alternatives of government to fund its activities (Duff et al., 2009). Bofah (2003) posited that taxes refer to the revenue that is collected by the government to provide services and finance themselves. There have several impacts of taxes due to economic growth whether it is positive or negative impacts. Taxation provides governments with the funds needed to invest in development, relieve poverty and deliver public services. It offers an antidote to aid dependence in developing countries and provides fiscal reliance and sustainability that is needed to promote growth. Taxation is integral to strengthening the effective functioning of the state and to the social contract between governments and citizens. Tax system design is also closely linked to domestic and international investment decisions, including in terms of transparency and fairness.

Kapstien and Kim (2011) argued that there are three (3) sources of mining-related tax income which include Pay As You Earn (PAYE) taxes, corporate income taxes, and mining royalties. The ultimate goal of any government's mining tax system is to ensure the greatest possible benefit for the public while simultaneously encouraging investment in the sector (Mitchell, 2010). Different types of taxes influence investment behaviour and government administration. For instance, taxes based on units of production irrespective of profitability may create economic inefficiencies by discouraging the exploitation of lower grade ore and shortening the life span of some mines. Conversely, taxes on corporate profits (and to a lesser degree incomes) are more efficient and recognise the inherent risks in mining operations, particularly wide fluctuations in international minerals prices and the difficulties of anticipating all geological, technical, financial and political factors over a mine's lifetime. Further, profits-based taxes tend to distribute these risks more evenly between companies and the state. While perhaps economically superior, the challenge with profit-based systems is their greater complexity, which may be a genuine constraint in developing countries with limited administrative capacity.

According to Pratt (2005), the different participants involved in the exploitation of mineral resources have different views and may have diametrically opposed perspectives on the expectations of a mining tax regime, given that their objectives and needs are different. Ultimately, it is the government who holds the responsibility to design the fiscal regime that allows both parties to achieve, at least in some degree, their objectives (Pratt op cit.). In order to determine the needs and objectives of the government, one of the most relevant economic purposes of modern governments is to apply fiscal and monetary policies in such a way as to achieve price stability, full employment and economic growth (Duff et al., 2009).

In a country where political risk is perceived as high, companies are usually attracted by the incentives provided by host government, such a reduced tax burden, what allows companies to potentially increase the rate of return on the investment. These tax rates, however, may be of particular economic importance. The reported income of high-income taxpayers has been found to be more sensitive to tax rates than that of low- and moderate-income taxpayers. Thus, increasing tax rates on high-income taxpayers may have larger effects on the size of the tax base than among other taxpayer groups. The high income tax brackets have also been found to be important to flow-through businesses because a disproportionate share of this income is subject to the top income tax rates. Finally, the taxation of dividends and capital gains results in the double taxation of corporate profits and higher tax rates amplify the distortive effects of the double tax for a number of economically important decisions (Carroll and Prante, 2012).

Economists have long recognized the role tax rates play in the decision making of households and firms. Economic research has generally indicated that high tax rates on these firms' owners may result in less hiring and capital investment of businesses, and the slower growth of firms within this sector. Higher tax rates on dividends and capital gains can also have pronounced effects on economic decisions. High taxes on dividends and capital gains serve to increase the double tax on corporate profits and amplify the distorting effect that the double tax has on the overall level of investment, the allocation of investment within the economy, debt versus equity financing, and corporate governance through its effect on firm dividend policy (Carroll and Prante op cit.).

1.2 Problem Statement

Ghana is the second largest producer of gold on the African continent and is also the tenth largest producer of gold in the world (Revenue Watch Institute, 2011). The subject of gold mining is one that is continuously debated on since it is linked to the country's economic development. Over the years, the taxes and royalties paid by mining firms has contributed significantly to the economic development of Ghana through the provision of infrastructure and other amenities. While these taxes are beneficial to the economic development of Ghana, mining firms believe the current mining tax regime needs to be reviewed to reduce the burden on the already fragile industry. For instance, the Ghana Chamber of Mines has warned that the tax burden is making it unprofitable for the mining industry to continue operations and has advised government to reduce the tax burden to enhance the sustainability of the mining industry. The requirement of large amounts of capital up front, added to the fact that there usually are long time lags between investment and production, imply in most cases a large negative cash flow for a period of time. The development of a mine implies a high cost, higher taxation levels are likely to reduce incentives to invest, and in marginal cases, even to keep some mines operating. The major problems detailed above explain why the mining sector requires that governments put in place a tax policy specifically tailored to manage and balance the huge financial commitments of investing firms, guaranteeing them a tax treatment that is fair. However, there is almost no research work as to the effects of taxes on the sustainability of the gold mining industries in Ghana. There, the problem the researcher intends to investigate into is the effects of taxes on the mining industries using AngloGold Ashanti as a case study.

1.3 Objective of the Study

The main purpose of the study is to determine the effects of current mining tax regime on the sustainability of AngloGold Ashanti.

In order to achieve this aim, the study addresses the following specific objectives which include:

1. To examine the mining tax regimes in Ghana from the period 2004 to 2014.
2. To examine the corporate tax of AngloGold Ashanti from the period 2004 to 2014.
3. To examine the effects of mining tax system in Ghana on the sustainability of AngloGold Ashanti.

1.4 Research Questions

The research questions are as follows:

1. What is the mining tax regimes in Ghana from the period 2004 to 2014.
2. What is the profitability of AngloGold Ashanti from the period 2004 to 2014.
3. What is the effects of mining tax system in Ghana on the sustainability of AngloGold Ashanti.

1.5 Scope of the Study

The study will be conducted in AngloGold Ashanti (AGA) to assess the effects of taxes on the sustainability of the gold mining industries. There are many facets of this study; however, it will be limited to finding out the mining tax regimes in Ghana from the period of 2004 to 2014, the corporate tax of AGA from the period of 2004 to 2014, as well as the effects of tax systems in Ghana on the sustainability of AngloGold Ashanti.

1.6 Justification for the Study

This study is very important as it brought to light the effects of tax system in Ghana on the sustainability of gold mining industries. Findings from the study can directly and indirectly help the decisions and activities of tax policy makers in structuring appropriate tax systems to suit the operations of the mining industries. The study will also fill in the knowledge gap in existing literature on the subject matter. The research results can also be used for further studies on the effects of tax system in Ghana on the sustainability of gold mining industries

1.7 Brief Methodology

The study is a descriptive cross-sectional case study and exploratory design using quantitative and qualitative method. It was found appropriate to use this method because it enabled the researcher to explore effects of taxes on the sustainability of mining industries. The study relied on both primary and secondary data. The secondary data was obtained from the audited financial reports of AngloGold Ashanti, with reference to tax paid for the period of 2004 to 2014. The data was analysed using a Statistical Package for Social Sciences (SPSS) version 20.0. The primary data in the form of interview with two finance directors of AGA, was transcribed and presented to examine the firm's views on the current mining tax regime and how it is affecting its sustainability

1.8 Limitations of the Study

The major limitations of the study include the unavailability of definite tax bases, which, consequently called for the use of proxies in the estimations. This research only gives aggregate level information reflecting the impact of the total tax reform on the sustainability of mining industries. It is not capable of disaggregating these impacts into

various sources of change in each tax under consideration such as the impact of changes in the statutory tax rate or tax administration efficiency among others. Further research is therefore required to address the foregoing limitations.

1.9 Organization of the Study

The study is organized into five (5) main chapters. Chapter one deals with the introductory part of the study. It explains background information of the research topic, statement of the research problem, general and specific objectives, research questions, limitations, highlighting the significance and scope of the study, brief description of the study methodology, and pointing out how the entire study was organised. Chapter two also reviews pertinent literature on the subject matter. Chapter three presents the research methodology by discussing the research design, the study population, sample and sampling techniques, source of data collection, instrument and procedure for data collection, ethical consideration reliability of the instruments, data procession and analysis, and organisation profile. Chapter four gives data presentation, analysis and analytical discussions of results in relation to the set objectives of the study. Chapter five presents the summary of the findings, conclusions, and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The mining sector has strong and direct social, environmental and economic impacts. The key factor determining investment decisions is the geological potential of a site, but it is strongly offset by fiscal and socio-political considerations, with the former including tax rates and the latter the stability of the tax system. The ultimate goal of any government's mining tax system is to ensure the greatest possible benefit for the public while simultaneously encouraging investment in the sector. Achieving this requires realistic consideration and careful balancing of the objectives of the two key players: companies and governments. The literature review provides critical points of knowledge that has to do with the research topic “the effects of taxes on the sustainability of the gold mining industries”.

2.2 Definition of Key Concepts

2.2.1 Taxation

Taxation is central to the current economic development agenda. It provides a stable flow of revenue to finance development priorities, such as strengthening physical infrastructure, and is interwoven with numerous other policy areas, from good governance and formalizing the economy, to spurring growth. Fundamentally, tax policy shapes the environment in which international trade and investment take place. Thus, a core challenge for African countries is finding the optimal balance between a tax regime that is business and investment friendly, and one, which can leverage enough revenue for public service delivery to enhance the attractiveness of the economy. A significant share of the tax

revenue increase in Africa stems from natural resource taxes, while nonresource-related revenue has increased by less than 1% of GDP over 25 years (Pfister, 2009). This disparity becomes even more challenging against the backdrop of the global economic crisis (with economic growth in Africa expected to decline from 5.7% in 2008 to 2.8% in 2009) and the decrease in commodity prices (Pfister, 2009).

A small number of developing countries have managed to establish their tax systems in such a way as to achieve an appropriate level of revenue and to keep tax-generated misallocations within tight bounds. In most other countries, neither has it been possible to ensure the financing of public expenditure nor have the tax systems operated in conformity with economic policy objectives. The average taxation ratio of developed countries as a proportion of GDP lay between 29 and 32%, whereas the corresponding range for developing countries in the medium-income category was from 17 to 22%. The average taxation ratio in the poorest countries lies between 13 and 16% (Kefela, 2009).

2.2.2 Corporate Income Tax

In Latin America, mining is subject to corporate income tax (CIT), where profits are considered corporate income. International development advisers have long suggested that CIT become the main mechanism to collect revenues from natural resources since, unlike royalties, it does not selectively apply to extractives over other industries. CIT is also progressive in the sense that larger, more profitable firms pay more than smaller firms are. In most countries in Latin America, CIT is applied at rates that vary from 18.5% in the case of Chile, to over 30% in Argentina, Brazil and most other countries (Heidrich, 2013).

CIT has the fiscal advantage that as the profits of a mining company increase, so do the government's revenues. However, the CIT is also very procyclical, as profits often depend in the short-term on international mining commodity prices. This is a significant problem since government expenditures are needed more in times of economic downturns than when going through economic booms. For the same reason, CIT revenue is not suitable for long-term developmental goals (Heidrich, 2013).

2.3 Designing Adequate Mining Tax Regimes

According Otto et al. (2012), taxation is a critical factor for investment decisions due to the particularities of mining activity, including:

- (a) long period between exploration and production;
- (b) high up-front capital intensity;
- (c) high costs for mine closure;
- (d) highly cyclical revenues (price fluctuation); and
- (e) technical and environmental uncertainties.

In this sense, investments in mining tend to be addressed to places where the taxation system is sensitive to such peculiarities. From the host governments' viewpoint, other special characteristics of mining are also relevant for designing the taxation regime. They include:

- (a) necessity to secure investments and stabilize the revenues flow vis-à-vis the minerals price fluctuations;
- (b) mining projects usually create few spin-offs and indirect socioeconomic benefits, and taxes may be an effective mechanism to capture the value-added of mineral output;

(c) perception of fairness in imposing additional compensation for using nonrenewable and usually public-owned resources; and

(d) high potential to generate substantial economic rents and windfall profits (Otto et al, 2006).

Governments tend to impose special tax instruments to the mining sector to deal with said distinguishing features and reconcile their own objectives with those of investors and companies. Although in general terms both parties share a common main goal (create high levels of economic benefits), they have different perspectives of how achieving it (Kumar, 1991). In few words, the primary focus of investors and companies is to assure, as fast as possible, the minimum expected return of the investment. On the other hand, the government primarily aims to maximize tax revenues and other socioeconomic benefits, without retracting private investments or reducing the country's competitiveness. It intends also to assure some stability to revenue flows. A tax regime too favourable for investors will encourage over-investments without government reaping adequate reward, while excessive tax burden may repeal new investments and shrink the mining sector. Therefore, a good balance between both parties' objectives is the main challenge when designing tax policy for mining.

The following concepts may be used as general criteria to assist policy makers in this task. They are helpful to design tax systems that increase revenue by the creation of a larger tax base and prevent heavy tax burden that discourages exploration and long-term development (Otto, 1992).

2.3.1 Economic efficiency and neutrality

Efficiency means that, as far as possible, the tax imposition will not distort the decisions of economic actors on performing the activity. It assures tax revenues collection without affecting the economic resources allocation to their most productive use.

Efficiency is narrowly linked to neutrality and economic rent. A neutral tax does not affect corporate decisions related to consumption, production or trade. It is a widely accepted idea that any taxation system should be as neutral as possible. In order to be neutral and, at the same time, maximise the revenue, the tax regime should extract no more or no less than the economic rent (Garnaut, 2010).

2.3.2 Stability

The long-time cycle and high up-front investments inherent to mining projects require stability, especial of the tax regime, in order to attract the risk capital. Stability is a core element to reduce the perceived political risk. Low political risk makes investors drop the reward for taking the risk of the investment and, as a result, increases the economic rent. Conversely, if the perceived risk is high, investors will seek higher rates of return (ICMM and Commonwealth Secretariat, 2009).

Flexibility is an important factor to ensure stability. An inflexible tax regime is not sensitive to relevant changes in circumstances, and legal adjustments may be required to restore an equitable tax burden. Flexibility tends to be higher in tax regimes that target at the economic rent (Tordo, 2007).

2.3.3 Revenue maximization and stabilization

Great revenues are not achieved by merely setting high tax rates. Policy makers should consider other factors, such as the competitiveness among countries for investments. Maximising revenues in the long term implies reducing the political risk in order to increase investments and the economic rents, and impose a tax regime that capture no more and no less than the latter.

2.3.4 Clarity, simplicity and administration

A good tax system must as far as possible be easy to administrate, and clear and simple to be understood. Clarity and simplicity tend to facilitate the tax administration, assure stability and avoid judicial disputes. These features also make the evaluation of corporate fiscal liability easier, and reduce administrative costs and risk of misinterpretation to both government and taxpayers (ICMM and Commonwealth Secretariat, 2009).

2.4 Gold Mining in Ghana

In recent years, numerous multinational mining companies have rapidly expanded their operations into rural reaches of the developing world, drawn in by attractive, highly liberalized investment regimes (Warhurst and Insor, 1996). As a precondition for securing World Bank and IMF loans, recipient governments in mainly developing countries have divested state mineral assets, privatised large-scale mining operations, and implemented favourable mineral taxation and investment policies. Ghana is one such country that has undergone a lengthy structural adjustment programme under the auspices of the World Bank. Reforming the mining sector was seen by the World Bank as a key factor in attempts to alleviate the economic crisis in Ghana.

Since the mid-1980s the Government has privatised its large-scale mining sector, attracting over \$4 million in foreign investment for the development and expansion of large-scale gold mining and explorations activities alone (Hilson & Potter, 2003), and has, to date, overtaken cocoa as the biggest single foreign currency earner (Stickler, 2006). The reform of the mining sector, therefore, has produced a dramatic boom in investment flows and “the national economy has been quite dependent on the sector” (Aryee, 2000). Compared with other mineral-rich countries, however, Ghana is not solely dependent on the mining sector and the contribution of other export commodities, such as cocoa and timber, is also substantial.

“The dependence is therefore on a few – predominantly primary – commodities rather than just minerals. Admittedly, this makes the economy more susceptible to the vagaries of the volatile prices of primary commodities” (Aryee, 2000).

Aryee (2000) also notes that Ghana’s dependence on the mining sector could deepen if the Government continues to implement measures that expand the sector without ensuring that the country as a whole reaps the maximum possible benefit. The environmental and social costs associated with the significant restructuring of Ghana’s gold mining industry have been dear. The national Coalition of Civil Society Groups against Mining argues that Ghana’s growing foreign investment and production in the mining sector has had a devastating effect on the country’s national economy, environment, community livelihoods and human rights.

Communities have been detrimentally affected in many ways by large-scale mining activities; entire villages have been relocated to make way for surface mining operations, compensation packages for the loss of land as well as livelihoods have been heavily

criticised for being woefully inadequate, and violent clashes have taken place between communities and the security forces of mining companies and/or the police of the Ghanaian Government (Hilson and Potter, 2003; Akabzaa, 2000; Stickler, 2006).

A further consequence of the mining sector reforms, which has negatively affected a sizeable section of the Ghanaian population, concerns competition over land use between large-scale and small-scale mining parties. The rapid proliferation of large-scale mining activity has led to a sharp increase in the number of disputes between multinational companies and Ghana's small-scale miners, as productive gold mineralised land has become an increasingly scarce commodity (Hilson and Potter, 2005). The conflict between small-scale and large-scale miners in Ghana is deeply rooted; large-scale miners argue that they have gone through the necessary legal channels to secure concessions and should therefore have legal entitlement, indigenous groups and small-scale mining parties maintain that they have cultural ties to land.

Even though the Ghanaian Government formalised the small-scale mining sector in the late 1980's – implementing a streamlined licensing process for indigenous grassroots operators – the Government continues to marginalise small scale miners by focussing on, and awarding large viable plots of land to large-scale mining companies. Hilson and Potter (2005) argue that the Government fails to recognise that, in a country with escalating levels of unemployment, the small-scale mining industry generates a significant number of direct and indirect forms of employment. In addition, as many as 85% of the country's small-scale miners have, for a number of reasons, opted to remain unregistered (referred to locally as *galamsey*) and operate alongside Ghana's large-scale mining companies and licensed small-scale miners, which has caused considerable tension within many rural

areas of the country (Hilson and Potter, 2003). A negative public perception surrounds illegal small-scale mining who are accused (often by the media) of causing widespread environmental damage, promoting child labour, and most significantly, encroaching and causing grievances on land plots demarcated to large-scale miners.

The environmental and social degradation that communities in Ghana have experienced so far looks set to continue given the resolute focus of the government on expanding large-scale surface mining and attracting foreign multinational companies. Critics argue that the forthcoming new Minerals and Mining Bill, which the government asserts will include better provisions for illegal miners and communities, does not address the concerns of mining communities but actually worsens the already unfavourable situation. Moreover, there are increasing concerns that the government will approve surface mining operations to take place in the country's protected forest reserves – areas recognised as globally significant for their biological diversity – which could lead to the displacement of thousands of people who are directly dependent on the forest for provision of basic needs and livelihoods (Hilson and Nyame, 2006).

Ghana earned \$2.5 billion from mineral exports in 2007. About 20,000 people are employed in large-scale mining whilst 500,000 are employed in the small-scale sector.

Mining contributes about 7% of Ghana's total corporate tax earnings, 41% of total exports, 12% of revenue collected by the Internal Revenue Service and 5% of Gross Domestic Product (Ghana Chamber of Mines, 2008). Gold dominates the mining sector and the country is Africa's second largest gold producer after South Africa.

2.5 Ghana tax reforms

Ghana's tax reforms constitute the major policy instrument needed to accelerate growth and poverty reduction (Osei, 2006). Ghana's major changes in tax administration fiscal policies played a key role in improving the country's revenue mobilization and overall fiscal health. The prime factors cited for the increase in revenue are the expansion of tax base, the structure of taxation; and reorganization of the tax administer. If tax administration is to become effective in developing countries, enormous needed to perform as the professional roles of revenue institutions. Designing a suitable mediumterm fiscal is framework that fosters a sustainable delivery of better public services and infrastructure while maintaining a credible commitment to fiscal prudence confronts many challenges.

The main task of fiscal administration in these ministries tends to be virtually coordinated with expenditure allocation and control by the budget division. However, as revenues, policy is compromised and the actual supervision of revenue performance becomes relaxed, leading to ineffective administration and loss of revenue. Bougrand, Loko and Mlachila (2002), found that foreign loans are still the most attractive way to finance budget deficits, while a significant devaluation risks and a high levels of domestic interest rates are involved. Generally, the deficit leads to a change in government net assets and can be financed by either drawing down assets or incurring new liabilities of both domestic and foreign nature. The choice between foreign and domestic borrowing, it depends on the cost (interest rates), maturity structure and risks.

2.6 Tax Discrimination

Tax discrimination is another aspect of the trade-off. It is a common practice throughout the world. The three most common tax discrimination practices are based on the type of

mineral being mined, the scale of the operation, and the “nationality” of the miner (Otto, 2000). Discrimination by type of mineral may be achieved, for instance, by the use of higher royalty rates for a specific type of mineral or class of minerals, for minerals that compete in a global market, and/or for minerals that generate higher profits than others do (Otto, 2000). Discrimination by size of operation usually takes into account the profitpotential of the investment and provides exemptions from certain taxes for a period of time (Otto, 2000). Finally, discrimination by nationality of the miner is common in developing countries and it is usually achieved by means of providing special tax terms to foreign investment through specially negotiated agreements (Otto, 2000).

The subject of tax discrimination is highly contested in the literature with regards to the way in which these types of provisions should be interpreted (Mason and Knoll, 2012). The fact that a local versus foreign party or a large versus small company implies different uses of government services may justify differences in their tax treatment (Mason and Knoll, 2012). In this sense, arriving to the conclusion that a tax is discriminatory requires an understanding of the values being promoted by the nondiscrimination principles (Mason and Knoll, 2012). The analysis of these principles is beyond the scope of this thesis, but nonetheless, it is important to keep in mind the perspectives and usual trade-off that tax discrimination may imply for governments and foreign investors (Mason and Knoll, 2012).

In this sense, we should keep in mind that from the government’s perspective, tax discrimination allows for an increase in tax revenues but may reduce competitiveness as compared to other jurisdictions. Conversely, from the investor’s point of view, (depending on the specific situation such as the size of the operation for instance), risk compensation, volatility of mineral prices in the global market and lack of neutrality are situations that

may need to be addressed by government. The challenge is to determine how much tax can be extracted from the investment while providing mining companies with reassurances that the investment is worthwhile (Otto et al., 2006).

2.7 Taxing Profits versus Taxing Production

According to Otto et al. (op cit.), mining investors generally prefer profits-based taxes to production-based taxes, since these types of taxes help reduce their financial risks. In some cases, for example, profit-based taxes allow investors to delay the disbursement of the tax payment until the moment in which up-front costs have been recovered depending on country specific accounting and tax rules (Oxford Policy Management, 2009). This will likely not be the preferred alternative to host governments, since the use of these types of taxation implies that government will receive little to none revenues for a period of time. Both parties seem to agree on the fact that certain amounts of funds received today are more valuable to the holder than they would be if received in the future (Otto, 2000).

Conversely, production-based taxation not only allows governments to ensure some tax revenues, but also brings with it some political advantages such as earmarking those revenues (Oxford Policy Management, 2009). For mining investors the main disadvantage of using production-based taxation is that it may imply the payment of taxes even when the investor may be in a loss position (Oxford Policy Management, 2009). Production-based taxes may also work as a persuasion for investors to cut back production on sites that have higher per unit costs (Oxford Policy Management, 2009).

2.8 Sustainability related to the Mining Sector

There are two ways through which it is possible to tackle the question of sustainability related to the mining sector. The first refers to sustainability of the sector itself, and is

related to how to make exploitation of a supposedly non-renewable resource sustainable for companies. The second aspect is related to the mining sector's influence on economic, environmental and cultural sustainability of those countries or regions, which depend heavily on mining as a source of income and development. On the other hand, mining uses a large quantity of environmental services for production input (air, water, soil, etc.). A sustainable use of these resources should be achieved, minimizing potential effects on the ecosystem, biodiversity or people's health.

Governments are aware of the need to minimize environmental damage, to internalize environmental costs, to create forward and backward linkages between the mining companies and the local economy in order to increase economic sustainability, and to take care of social and cultural needs of the local communities, especially regarding the period after mine closure. They are also aware of the fact that in most cases the government is the owner of the resources and should, therefore, receive part of the surplus obtained through minerals exploitation - the resource rents should accrue not only to the company but also to the government, as national assets are being depleted.

Some groups have suggested that mining is an inherently unsustainable activity, since it is based on the exploration for and development of non-renewable resources. Another school of thought sees mining companies as production agents that have the ability to turn non-renewable resources into rents, a flow of wealth above and beyond profit, which can be used to generate sustainable development in the countries and communities where they operate, given the right incentives (Lins and Horwitz, 2007). This presents a challenge to the policy makers and the industry leaders, who have met this challenge with innovative responses.

2.9 Key Sustainability Issues in the Mining Sector

The following sustainability issues were primarily identified using criteria established by the Global Reporting Initiative (2005) and The Dow Jones Sustainability Index, two current benchmarks for establishing a company's sustainability practices (Lins and Horwitz, 2007). Whenever additional issues were discussed, sources are noted. Processes for creating mines, for extracting minerals and stones, and for processing these materials vary widely. For this study, we have approached these widely varying practices with a simplified lens.

2.9.1 Environmental

The potential negative environmental impacts of mining activities are summarized below. Note that pollution varies widely depending on the type of material being produced and on the specific operation. Among the most pressing environmental concerns for stakeholders are mining companies' energy and water use, the impact of mining activities on biodiversity. Mining companies continue to seek to reduce the emissions of toxic substances such as carbon, nitrogen and sulfur dioxides, generated in smelting and combustion processes, and well as the pollution of the air by particulates created in handling the ore. They are also concerned by the production of ozone-depleting substances and fluoride. Air quality in and near mines is extremely fragile and must be monitored and maintained at safe levels.

The sustainable use of water also poses a challenge to the sector. Mining firms need water to transform ore into metal, which in the case of gold requires the mixing of cyanide in the water that is used for the separation of the metal from the ore, a process called "heap

leaching.” Companies are challenged by the safe disposal of tailings that ensue – the mixture of wastewater, chemicals and ore left over from the extraction process (Earthworks and Oxfam America, 2004). Companies are also seeking ways to reverse previously created damage to the existing water supplies from previous bad practices, and to ensure that surrounding communities have safe drinking water (Anglo American plc Report, 2005).

Minimizing the impacts of mining practices on biodiversity is also a major challenge facing mining companies today. Frequently, when mining companies create new mines, they strip the land of all plant life, destroying animal habitats and threatening the region’s biodiversity. Companies have also damaged their own land holdings even if this land has inactive mines or no mines. Companies are therefore challenged to avoid harmful impacts on all lands they own, including avoiding unnecessary disturbance, use changes, and removal of habitats. More recently, efforts have been made to account for environmental practices throughout the supply chain. Suppliers’ practices and transportation of materials and workers are increasingly under scrutiny for their environmental impacts. Companies and their suppliers are encouraged, wherever possible, to use eco-efficient and sustainable products, to recycling and to avoid the use of toxic products.

2.9.2 Social

In the social sphere, the industry is seeking to meet challenges regarding worker and community safety, stakeholder engagement, HIV/AIDS reduction, policies for the life cycles of mining operations, and human rights. Efforts have been made to account for these concerns all points in the supply chain. The health and safety of workers is a major challenge to mining companies. Leading companies have implemented or are currently implementing standards for employee safety, including occupational safety training,

protective gear, and health care. Of particular concern in the industry is the prevalence of HIV/AIDS and other endemic diseases such as malaria in mining communities, especially for companies with operations in sub-Saharan Africa. These diseases have not only damages the health of community member, but also diminished the workforce and are reducing the productivity of the existing workforce (Lins and Horwitz, 2007).

With respect to labour practices, mining companies face a number of challenges. In addition to hiring and retaining quality employees, companies are required to create opportunities for the education and advancement of their workers. Companies are encourage to hire a diverse workforce, including employing women, and in encouraging women's advancement. In addition, they are challenged to make the workplace safer and more worker-friendly, to provide grievance mechanisms, and to communicate more productively with workers and their representatives and/or unions. Human rights have also been a subject of concern for mining companies and organizations that track them. Some companies have responded with comprehensive human rights strategies and programs such as non-discrimination and freedom of association; and policies against child labour, and forced or compulsory labour. Nonetheless, child and slave labour continues to be employed in the industry.

Many companies are also seeking ways to develop the communities that surround their operations, largely in response to claims that extractive industries have deleterious effects on communities. Several of these companies have implemented detailed plans for generating community income and for the improvement of community access to services, social infrastructure, and capital. If they do not provide education and training services to local employees, some companies facilitate access to education and skills training in the communities where they work. Finally, companies are expected to work to

preserve indigenous culture and heritage, particularly since many mines are located in areas with indigenous populations (Earthworks and Oxfam America, 2004). Stakeholders have expressed numerous concerns about mining companies fundamentally changing cultural practices in new mining communities.

2.9.3 Economic

There have also been claims that mining companies do not operate in ways that will provide them with long-term economic sustainability. For instance, by operating irresponsibly in the social and environmental spheres, mining companies can undermine trust in their organizations. This mistrust diminishes investors' trust in companies, damages their reputations, and therefore harms their investment potential. To maintain economic sustainability, various factors must be taken into account. In addition to the traditional factors, such as net sales, payments and debts, other factors should also be noted. Of particular interest are investments in the public sector and payments made to governments.

According to the Earthworks and Oxfam America (2004), mining companies are challenged to contribute to the sustainable growth of the communities in which they operate by leaving behind institutions and infrastructure that will support the community beyond the life cycle of the mine. Companies are encouraged to identify sites where local economic development is of particular significance and interest to stakeholders, outline policies with respect to assessing this contribution, to invest in these institutions and infrastructure. In addition, companies are advised to draw goods, materials, and services from local communities.

To curtail bribery and other illegal payments, companies are strongly encouraged to account for and divulge all taxes of all types paid in all operations. Donations, similarly, may be counted and disclosed. A number of initiatives have begun to press governments and companies to disclose all payments (see section 3.4, page 19 for a more detailed account). Numerous groups have interest in the sums paid for land concessions or paid in taxes, particularly because of the numerous opportunities for corruption, and to monitor the ways that revenue reaches (or does not reach) other sectors of the host community.

2.9.4 Country Level Governance

In addition to efforts undertaken by mining companies, country level of governance plays a significant role in creating sustainable wealth in areas where mining companies operate. This is particularly crucial in the developing world (Stiglitz, 2006). Taxing, regulation, transparency and external auditing can mitigate the risks of negative longterm consequences.

Mining has been linked to the so-called “Resource Curse.” The resource curse thesis suggests that countries with vast mineral wealth “tend to have lower growth rates, more debt, worse governance and greater political unrest than their ... neighbours” (Richter, Anthony, and Svetlana, 2003). This is especially the case for smaller countries with a greater portion of the GDP generated by extractive industries, and these deleterious effects are most apparent in countries dependent on the extraction of a single mineral. According to UCLA political science professor Michael Ross, oil and mineral dependent states tend to suffer from unusually high rates of corruption, more frequently have authoritarian and ineffective governments, have higher military spending, and are disproportionately affected by civil war (Ross, 2001).

Mining has also been held responsible for the “Dutch Disease,” a theoretical phenomenon in which massive amount of capital are invested in the mining industry at the expense of developing other sectors of the economy. Hypothetically, the exchange rate rises, making the manufacturing and agricultural sectors less competitive, increasing imports and decreasing exports.

Mining, it appears, can create sustained wealth in the developing world or can increase wealth disparity and deepen poverty (Power, 2002). As Michael Ross has argued, overall standards of living in mineral dependent countries are extremely low — lower than they should be given their per capita incomes. He finds a strong correlation between higher levels of mineral dependence and higher poverty rates, and notes that mineral dependent states tend to suffer from exceptionally high rates of child mortality, low life expectancy, and income inequality. He also notes that mineral dependent states are highly vulnerable to economic shocks (Ross, 2001).

The relationship between public and corporate governance in relation to the mining sector is significant and divisive. Some groups have called for increased governmental regulation of the industry, while others suggest that companies should adopt proactive measures to avoid burdensome external regulation.

2.10 Impact of Taxes

According to Bretschger (2010), he found negative impacts of corporate taxes on openness and total tax revenue to the economic growth in 12 OECD countries. He also mentioned on the tax competition theory that argues that, when tax rate of capital is reduced, it will

cause the capital inflow to a country. Christina and David (2007) conducted study of the impact of changes in the level of taxation on economic growth in which they investigated the effects of tax on GDP in United State in the post-World War II period. The study found that a tax increase by 1% leads to reduced 2% to 3% of GDP in United State. From their finding, total tax revenue has negative relationship with two economic indicators that are saving and investment. However, according to them, personal income tax, corporate income tax, sales tax (consumption tax) and other taxes are highly significant, in which there is positive relationship with economic growth (GDP or GNP).

Mahdavi (2008) suggest that the effect of rises in total tax revenue will reduce the growth in developing countries. Due to by the fiscal crisis in the past several decades, several developing countries had to revive its economy by changing the level of taxes. The potential variable that will change the amount of tax revenue is change in inflation rate in a country. High inflation rate in a country will force the government to increase the taxes on goods and services by increasing the price and stabilizing the consumption and aggregate expenditure. With that, excise tax on some products may be affected with the change in inflation rate (Tanzi, 1989). A study by Mahdavi (2008) mentioned the effect of income, profit and capital gain tax due to change in inflation rate and investment plans. Based on his study, when the inflation rates increase, the household will protect their assets by substituting it with the assets that less domestic tax such as jewelries.

CHAPTER THREE

RESEARCH METHODOLOGY AND ORGANIZATIONAL PROFILE

3.1 Introduction

Research methodology lays out the overall approach of an organised process for assembling valid and reliable information for the purpose of investigations. It is the systematic pattern of obtaining information from a population to understand a phenomenon and to generalise facts gathered from the population. It also describes the method and techniques used in the collection and analysis of the data. The purpose of this was to explore effects of taxes on the sustainability of mining companies. However, this chapter describes the research design, sources of data, estimation techniques, data analysis techniques, and organisational profile.

3.2 Research Design

Research design describes what a researcher is writing on, thus, the hypotheses and their operational implications to the final analyses of the data (Akubia, 2011). The descriptive survey design using quantitative approach was used for the study. Descriptive survey research design pertains gathering of data to test hypothesis or finding answers to research question concerning the status of the subject matter (Gay, 1992; cited in Amedahe, 2006). Thus, the descriptive survey can be used to accomplish a wide variety of research objectives. It is used to describe the characteristics of certain groups, and to determine the proportion of people who behave in a certain way. It can also be used to make specific predictions and determine relationships between variables. With the descriptive research design, the researcher tried to describe the effects of taxes on the sustainability of mining industries.

3.3 Population of the study

Population is the full set of cases from which a sample is taken (Saunders et al. 2009). It is the collection possible individuals and objects for a study. Busha and Harter (1980) also defined a population as a set of persons or objects that possesses at least one common characteristic. For the purposes of this study, the study population consists of all major mining companies in Ghana

3.4 Sample size and Sampling Technique

Ideally, it will be better for a researcher to study the entire population since it will elicit responses from all parties. However, due to cost, time and accessibility constraints, researchers are often forced to obtain data from a smaller group, known as a sample (Cohen, et al 2000). This study selected a subset of the population for the purposes of analysis. In doing so, a sampling technique was adopted. Saunders et al. (2009) explained that there are two main types of sampling technique, probability or representative sampling technique and the non-probability or judgmental sampling technique. According to Zikmund (2000), probability sampling is a sampling technique in which every member of the population will have a known non - zero probability of selection, while a non - probability sampling is a sampling technique in which units of a sample are selected on the basis of personal judgment or convenience. This study adopted a non-probability sampling technique. The finance officers of the company were selected based on their ability to provide requisite answers to the interview questions.

3.5 Sources of Data

Data is important for the successful completion of a study. According to Saunders et al. (2009), research is basically about gathering the relevant data/information needed to answer various research questions and thereby helping to solve a problem. Data could either be primary or secondary. Primary data are new data collected specifically for that purpose; while secondary are data already collected for some other purpose (Saunders et al., 2009). For the purposes of this study, both primary and secondary sources of data were employed.

3.5.1 Secondary Data Collection

According to Leedy and Ormrod (2005), secondary data is the information collected by a researcher who is not one of the original data creators for a purpose that may be different from that of the original purpose. It was obtained from documentary sources such as articles, journals, reports, books, newspapers, and other research related to this study which served as both theoretical and empirical framework needed for the analysis of the data collected. The researcher examines the annual reports and accounts of AngloGold Ashanti and compares their turnover with their investment in sustainability projects. Due to the difficulty in obtaining data, the period selected for the study will be from 2004 to 2014.

3.5.2 Primary Data Collection

The interview guide was the main data collection instrument used to collect primary data. The interview guide allowed the researcher to gather qualitative data to complement the data obtained from the questionnaires. The reasons for conducting interview was to enable the researcher explore more into the subject matter. The questions in the interview guide were crafted in such a way that it answers the research questions stated earlier in

chapter one of this study. In designing the interview, the researcher considered various types of interviews. Merriam (1998) grouped the types as highly structured/-standardized, semi structured and unstructured/informal. According to the author, in the case of structured/-standardized interviews, the wording of the questions and the order of questions are predetermined and these interviews are like an oral form of written survey. Also the semi-structured interview is where a mix of structured and unstructured questions are used. For the unstructured interview, the questions are open-ended questions and it is flexible and exploratory and it is more like a conversation.

The study used the semi-structured interview to gather the information from respondents. This structure was adopted because the researcher was convinced that this was a good structure based on the study. There were areas of the study where the researcher wanted all interviewees to give their point of view and it was necessary to have the same art for all interviewees. In other areas, the questioned were asked based on the responses from the respondents.

3.6 Interview guide Administration

As indicated earlier, the purpose of this interview was to gather as much information as possible from the financial controllers at AngloGold Ashanti (Ghana). Prior to the interview, the interviewees were informed about the purpose of the research and were assured of confidentiality of the information that will be provided. The researcher personally administered the interview using the face-to-face approach. To ensure that all information provided is captured, the researcher sought permission from the interviewees to record the interview.

3.7 Method of Data Analysis

Raw data that is collected through questionnaire and interview guide conveys little or no meaning to end users. Data collected must be analyzed and presented in a manner that makes 'sense' to users of such information. Data analysis is important because it enables the researcher to make conclusions and meaningful recommendations based on the study.

According to Saunders et al. (2009), data analysis involves breaking down data and to clarify the nature of the components parts in order to establish relationship between them. Data can be analysed qualitatively or quantitatively based on the nature and objectives of the study. A qualitative data analysis enables a researcher to develop a theory from data, while a quantitative data analysis enables the researcher to explore, present, describe and examine relationships and trends with a quantitative data (Saunders et al., 2009). For the purposes of this study both quantitative and qualitative analysis was conducted. The quantitative analysis was conducted using descriptive statistics in the form of means and standard deviations. Various charts were also used to establish trends and relationship among the various study variables.

The interview was analysis based on the procedure proposed by Miles and Huberman (1994). First, the interview was transcribed and summarized. Second, the transcribed data was examined to establish trends and relationships. Finally, the result was presented in a form of tables and figures.

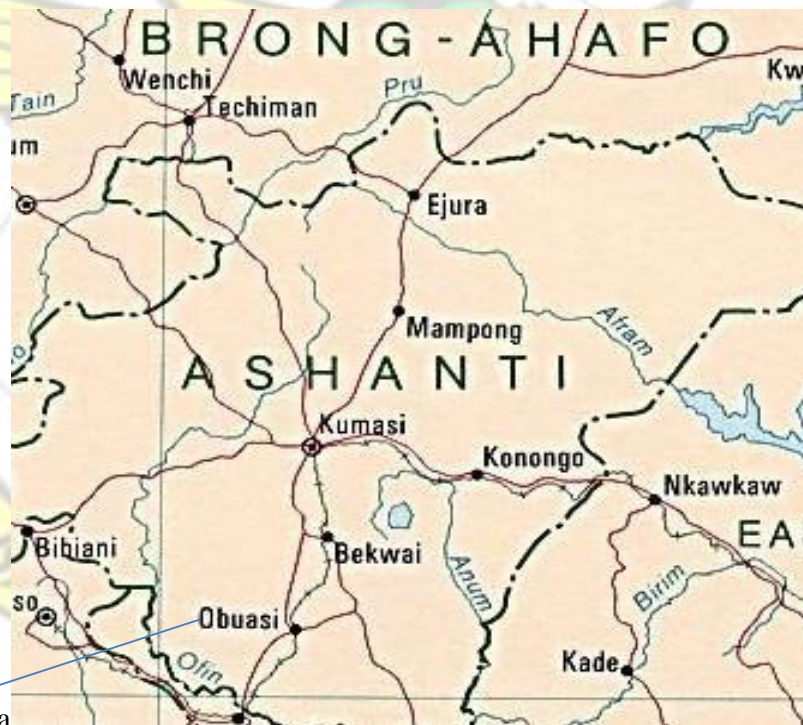
3.8 Organizational Profile

The Iduapriem Gold Mine is an open-pit gold mine situated 10 km south of Tarkwa, in the Western Region of Ghana. The mine is owned by AngloGold Ashanti and consists of the Iduapriem and the Teberebie operation, which were merged in 2000. Anglogold

Ashanti originally only owned 85% of the mine but acquired the remaining 15% in September 2007.

In 2008, AngloGold Ashanti's Ghana operations, consisting of Iduapriem and the Obuasi Gold Mine, contributed 11% to the company's annual production. Both mines became part of AngloGold Ashanti when AngloGold merged with the Ashanti Goldfields Corporation in 2004.

The AngloGold Ashanti mine, situated at Obuasi in the Ashanti Region, is located 300km northwest of Accra and 64km south of Kumasi. It is easily accessible by the Accra-Takoradi and Yamoranza-Ashanti-Bekwai inland roads (Foli 2004). A small airstrip built by AGA for light aircraft also links the area. The western rail-line network links the Obuasi area to the Takoradi harbour in the south.



The study area

Figure 3.1: Location of AngloGold Ashanti Limited

AngloGold Ashanti, Obuasi mine started operations as a mining company since 1897. The then Ashanti Goldfields Company has passed through many phases since its creation in 1897. According to (AngloGold Ashanti, 2005), three Cape Coasters – Joseph Biney, Joseph Brown and Joseph Ellis, founded the mine. It was officially incorporated and listed on the London Stock Exchange in 1897 by Edwin Arthur Cade (Obuasi Mines Presentation 2006). The aim for enlistment was to raise funds to expand and modernize the mine. The company was also enlisted on the London Stock Market. In the late 1960's, Lonrho, under the leadership of Tiny Rowland, took over the ownership and direction of the Ashanti Goldfields Company. In 1969, the ownership structure changed with the Ghana Government having a stake in the company for the first time in the history of the company. The government had a 20% stake in the company with Lonrho maintaining the remaining 80% (Obuasi Mines Presentation, 2006). The ownership structure changed again in 1975 after a coupe d'état. The government, together with Lonrho, agreed to increase Ghana Government's shares from 20% to 55%. To best serve the interest of the company, the technical management of the mine was placed under the minority shareholder (Lonrho), now Lonmin.

History was made in Ashanti, when Sam Jonah was appointed as the first African Managing Director in 1986 at the age of 35 (Obuasi Mines Presentation 2006). In 1994, the government sold 20-25% of its interest in share floatation and the company was listed on the London and Ghana stock exchanges. It was the largest floatation organised by any gold mining company. Each of the company's 10,000 employees received five free shares. In 1996, it was listed on the New York Stock Exchange and it became the first African Company to appear on Wall Street (Obuasi Mines Presentation, 2006). The merger was to

create a synergy as well as to maximize the potential of the company assets for its shareholders and the stakeholders.

In 2004, AGC merged with Anglo America, a South African gold mining company that has its Corporate Head Quarters in South Africa. After mergence, the new company adopted the name “AngloGold Ashanti. AGA employees are those employees who provide both direct and indirect services to the mainstream workflow of the organization. They include a wide range of core direct expert and support (non-core) services employees. These are the mining Engineers, Electrical, Mechanical, Geodetic, Instrumentation, Industrial Engineers, Surveyors, Accountants, Information Technologist, Administration, Metallurgists, Geology, Environmental, Training and Development, Medical Services, Public Relations Department, Human Resource Management, . These are the employees’ categories that perform the activities in ensuring the effective and efficient performance of the organization (Obuasi Mines Presentation 2006).

The vision of AGA is “to be Leading Mining Company”.

The Mission AGA states, “We create value for our shareholders, our employees and our business and social partners through safely and responsibly exploring, mining and marketing our products. Our primary focus is gold and we will pursue value creating opportunities in other minerals where we can leverage our existing assets, skills and experience to enhance the delivery of value”

The values of AGA are six and have been stated as;

- (a) ‘Safety is our first value
- (b) We treat each other with dignity and respect

- (c) We are accountable for our action and deliver on our commitments
- (d) We value diversity
- (e) The communities and societies that we operate in shall be better off for AGA having been there
- (f) We respect the Environment'

AngloGold Ashanti, Obuasi mine main activity is mining and processing of gold. Gold is mine from underground and surface mining. The one body is then transferred to the processing plant for milling and extraction of the gold. AngloGold Ashanti Obuasi Mine is divided into divisions namely mining, engineering, safety, health and environmental, processing, human resource, sustainability and Finance. From the beginning of the year, the total number of permanent employees was 4,253. This includes Ghanaians and Expatriates consisting of 3,076 Junior Staff employees, 1,136 senior staff and 41 expatriates employees. The male population exceeds female employees. This is due to the core activity of the mine, which is basically underground mining. The company is headed by Senior Vice President and assisted by seven divisional heads who are Senior Managers. Under the senior managers, we have department managers who are also assisted by sectional superintendents, supervisors and foremen. The current organizational structure of the company is tall, however with restructuring in progress plans are far advance to make it flat.

KNUST

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF RESULT

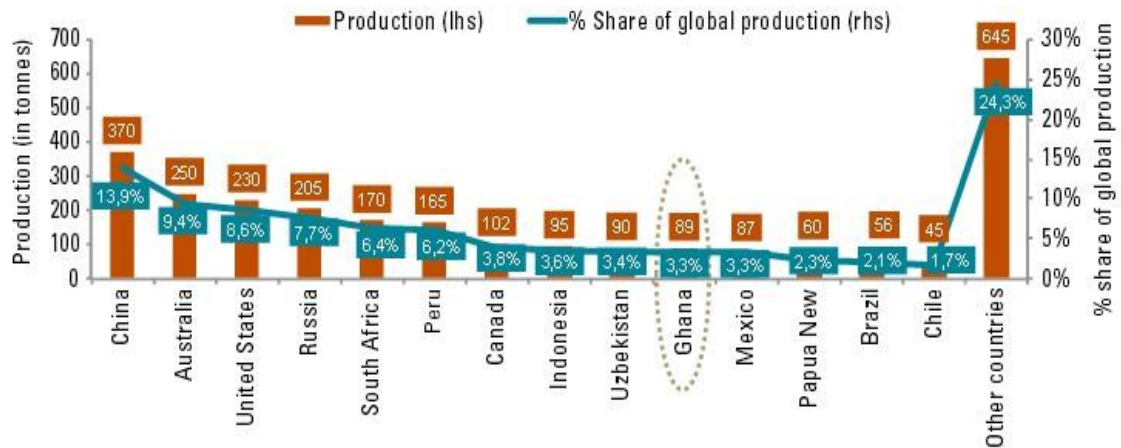
4.1 Introduction

In chapter three of this study, the methodology and sources of data for the study was examined and discussed. This chapter is dedicated to the analysis and presentation of the result. Specifically, both the secondary and primary data collected for the study is subjected to some form of statistical analysis to examine trends and relationship among the study variables. Both primary and secondary data was collected for the purposes of meeting the objectives of the study. Secondary data in the form of industry profit and taxes were subjected to statistical analysis. The primary data in the form of interview was collected from the finance directors of AGA. The interview complimented the secondary data used in the analysis.

4.2.1 The Mining Tax regime in Ghana

Ghana contributes significantly to the global gold production. It is the second largest producer of gold in Africa after South Africa and the 10th in the world (see figure 4.1).

Figure 4.1 Gold production outputs of gold producing countries



Source: Global mineral report, 2014

As a result of Ghana's gold production capacity, mining companies in Ghana have contributed significantly to the economic development of Ghana over the years through the taxes and royalties they pay. Various mining tax regimes have been implemented since Ghana gained independence in 1957. Since 2012, mining companies in Ghana are being made to pay a number of taxes. These include corporate tax (35%), capital gain tax (15%), withholding tax (15%), and capital allowances (20%) for five years. In addition to these taxes, mining companies are expected to pay 5% royalty on their total revenue every financial year. In July 2013 the National Fiscal Stabilization Levy (NFSL) was reinstated for a period of 18 months. This special levy imposes a 5 percent tax on the profits of certain companies, including those in the mining sector.

These taxes can be categorized into direct and indirect taxes. The direct taxes include income tax, withholding tax, and royalties. The indirect taxes include custom duties, compensation, state pension scheme skill development levy, VAT not claimed, Local Government rates and taxes. The descriptive statistics of taxes paid by these mining firms for the past 11 years (2004 to 2014) is captured in Table 4.1

Table 4.1 Descriptive taxes (direct and indirect) paid by mining firms for the past 11 years (2004-2014) USD (M)

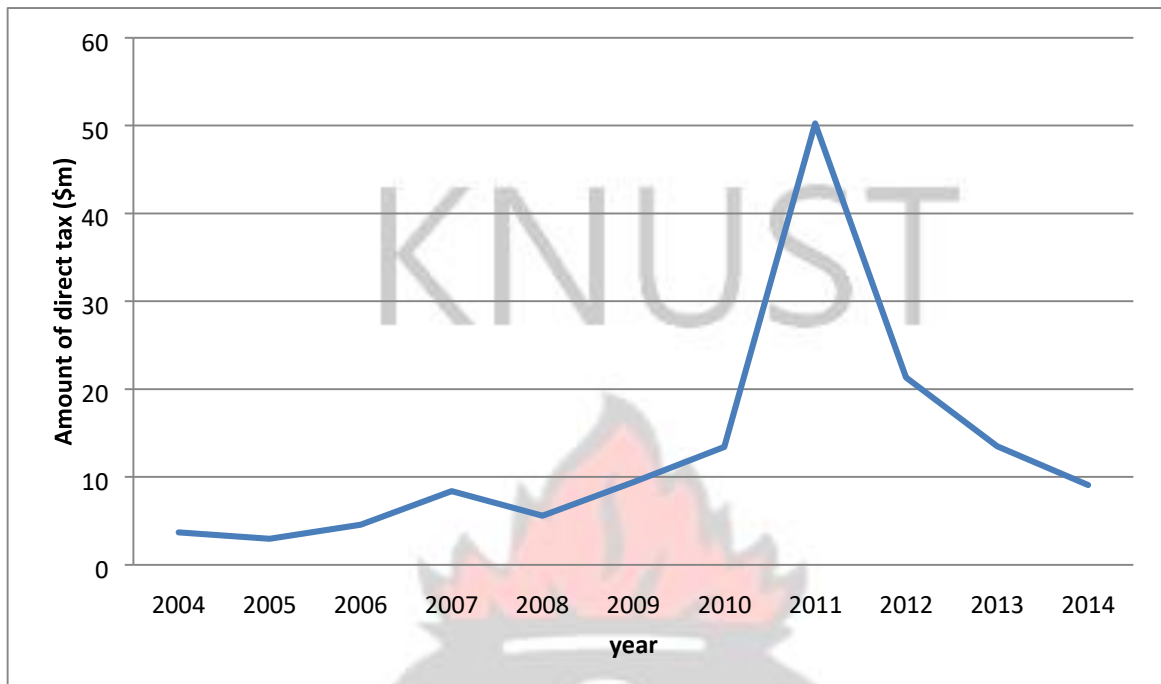
	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Total Taxes	11	4.85	56.23	192.84	17.5309	14.62466
Total Indirect Taxes	11	1.60	7.39	50.74	4.6127	2.20480
Total Direct Taxes	11	2.94	50.25	142.10	12.9182	13.49332

Source: Analysis of Field data, June 2015

It can be observed from Table 4.1 that within the past 11 years, the total amount of tax paid by mining firms in Ghana amount to \$192.84m, of which \$50.74 are indirect taxes and the remaining \$142.10m being direct taxes paid. It can also be observed that on average, the yearly total taxes paid by these mining firms for the past 11 years amounted to \$17.53m. However, with a high standard deviation of \$14.62m, it can be seen clearly that the yearly tax payment by these mining companies have been seeing significant fluctuations. This may probably be due to fluctuations in Gold Prices over the past five years, which has also affected the total revenues of the taxes. A cursory look at the trend of direct taxes and total taxes (see figure 4.1 and 4.2) paid by these mining companies indicates that the payment of taxes over the years has been highly volatile.

Figure 4.2 Trend line of direct tax paid by mining firms for the past 11 years (2004-

2014)



Source: Analysis of field data, June 2015

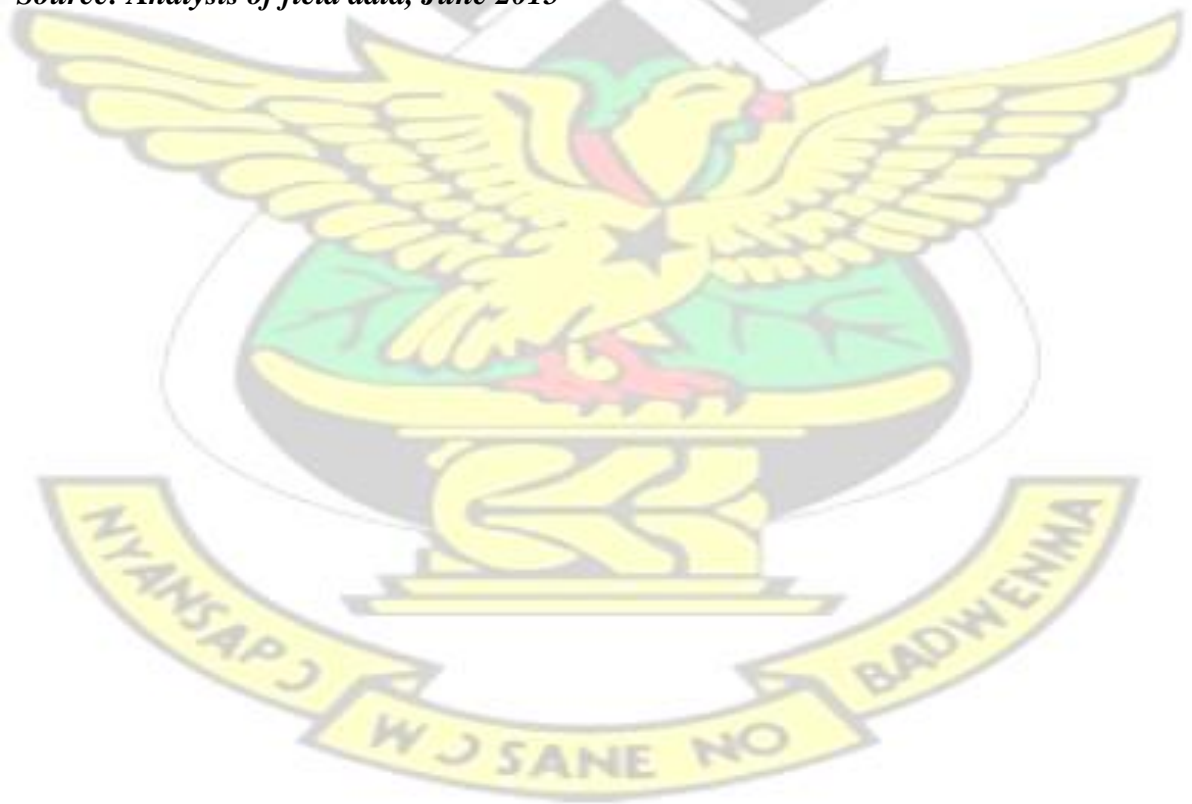
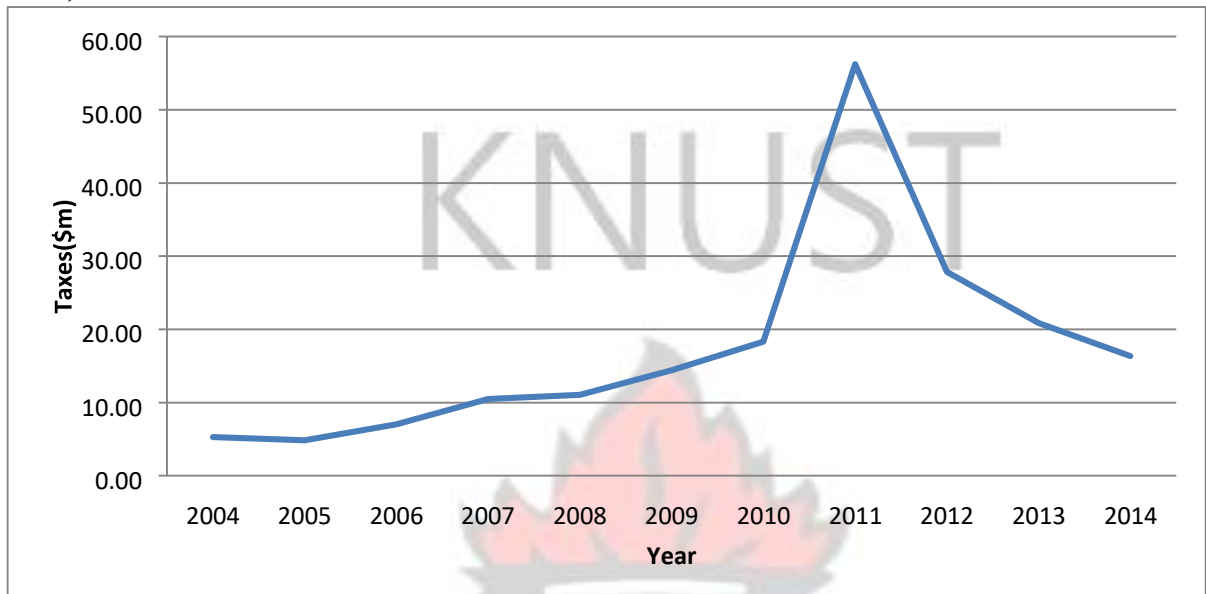


Figure 4.

3 Trend of total taxes paid by the mining firms for the past 11 years (2004-

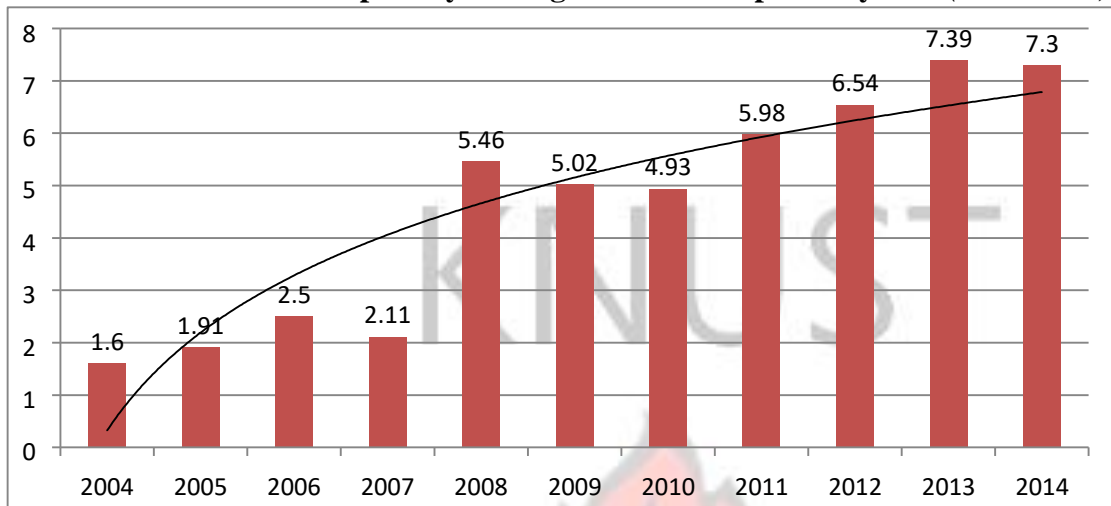
2014)



The amount of direct taxes from 2004 to 2011 witnessed a drastic increase due to high profitability of the mining firms and favorable gold prices for the period. However, since 2011, the price of gold has witness considerable fall, hence the fall in the direct taxes paid by these mining firms. However, the indirect tax paid by these mining funds has not seen drastic change in the past 5 years. This is because indirect tax themselves are not significantly affected by the revenue of these firms. Most of the components of indirect taxes must be paid whether the total revenue of the mining firms are increasing or not. It can be observed from Figure 4.3 that the indirect tax paid by these mining firms has actually seen improvement since 2011, despite the fall in gold prices globally.

Figure 4.

4 Indirect Taxes paid by mining firms for the past 11 years. (2004-2014)



Source: Analysis of secondary data, June 2015

4.3 Reason for the fall in total taxes paid to Government

A cursory look at the trend of taxes paid for the past 3 years shows a drastic fall in the taxes, especially in direct taxes. The fall in taxes is as a result of a fall in total revenue necessitated by the global decline in gold prices for the past three (3) years. The fall in gold prices has affected the profitability of the mining firms, which has in turn affected the amount of taxes they are able to pay to the government and other interested parties. It is obvious from the result that mining firms are struggling with the current gold prices.

Figure 4.

5 Gold price movements from 2010 to 2014



Figure 4.6 Relationship between total taxes paid and global gold prices

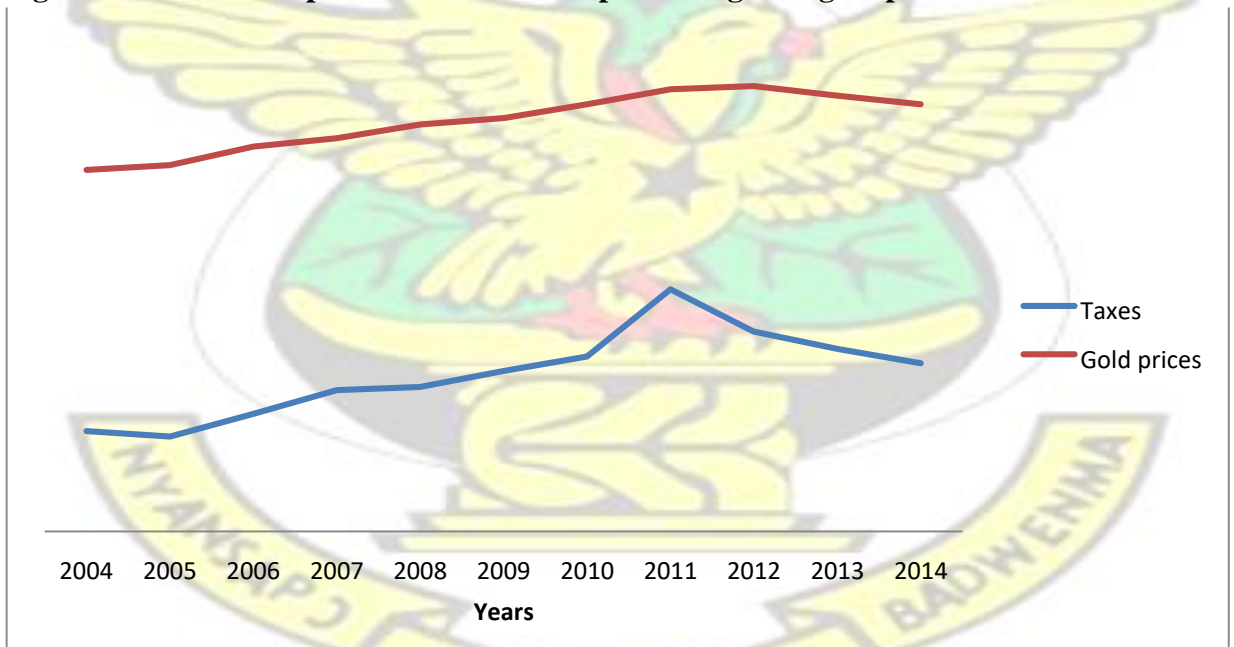


Figure 4.

Source: Analysis of field data, June 2015

The Graph in Figure 4.1 shows the relationship between gold prices and total taxes of the mining firms for the past 11 years (2004-2015). The graph shows a positive relationship between taxes paid and gold prices. From 2004 to 2011, when gold prices witnessed high



increases, the amount of taxes paid also increased. However, since 2012 when gold prices took a nose dive, the total taxes paid by these mining firms also saw a corresponding decrease. This shows that gold prices have significant impact on the total revenue of mining firms, and hence the amount of taxes they are able to pay to the Ghanaian government for developmental purposes.

4.4 Total profit of AGA for the past 10 years

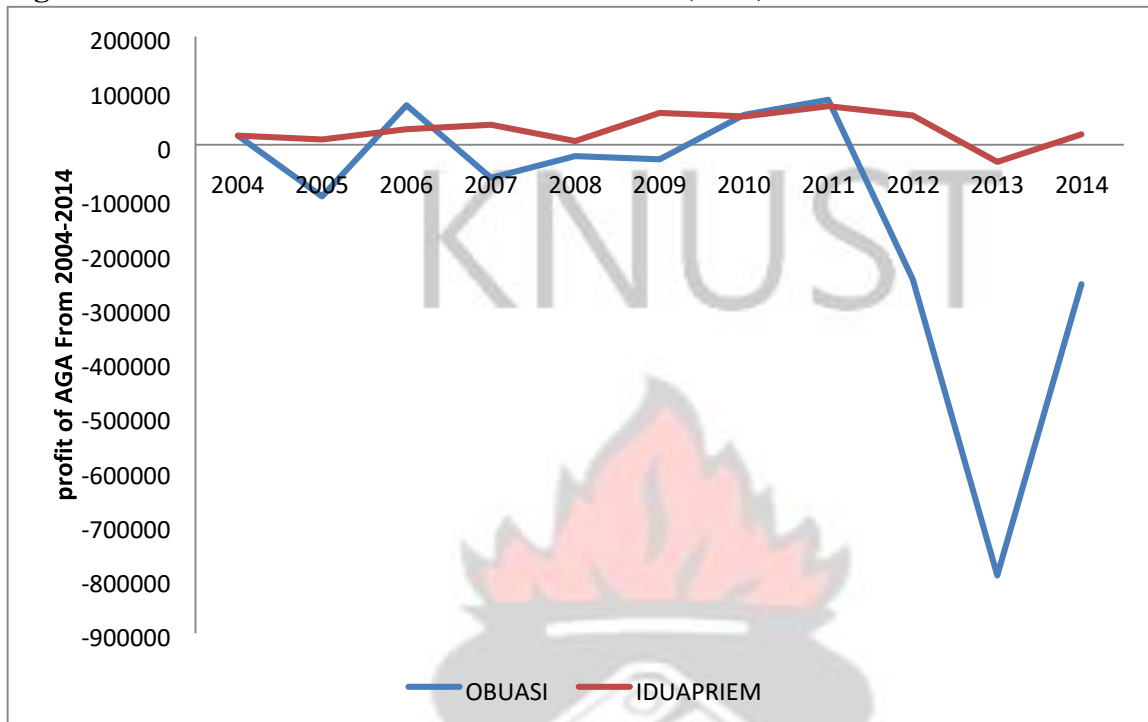
The second objective of the study examined the total revenue of AGA for the past 11 years. The objective is to examine whether the revenue of the company has been affected significantly since gold prices began to dip. Financial data of AGA (Obuasi and Iduaprim mines) was analyzed. The descriptive statistics of the data from 2004 to 2014 is summarized in Table 4.3

Table 4.2: Descriptive statistics of financial performance of AGA (from 2004 to 2014)

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
OBUASI	11	-793900.00	83100.00	-1273000.00	-115727.2727	252969.61909
IDUAPRIEM	11	-31005.00	71520.00	326184.00	29653.0909	29413.11609
TOTAL	11	-824905.00	154620.00	-946816.00	-86074.1818	273705.70313

Source: Analysis field data, June 2015

Figure 4.7 Profit trend of AGA from 2004 to 2014(\$000)



Source: Analysis of field Data, June 2015

Table 4.3 shows the profit descriptive statistics of the profit of AGA from 2004 to 2014 for its operations in Obuasi and Iduapriem. It can be observed from the result that the company has been experiencing high volatility in profit for the past few years. This is shown by the high standard deviation values for the profit of both mines. Though the total profit of the company for the Iduapriem mines is positive over the period (\$32, 6184, 000), that of the Obuasi operations is negative (-\$127, 3000, 000). In figure 4.5, it can be observed that profit for both the Iduapriem and Obuasi operations has been falling since 2011 when gold prices on the world market began to fall.

4.5 The effect of taxes on the sustainability of AngloGold Ashanti (AGA)

Given the important role played by the mining industry for the growth and development of Ghana, its sustainability should be paramount to the government and the citizenry at

large. However, the current decline in gold prices is posing a serious threat to the sustainability of mining firms, especially AGA. The current tax regime has also been cited as one of the major factors affecting the sustainability of the mining industry. For instance the Ghana Chamber of mines has decried the current mining regime, describing it as putting serious financial strain on the mining industry. The chamber of mines has warned that the tax burden is making it unprofitable for the mining industry, with several mines announced that it was ‘considering’ closing one of its mines. Also, the Vice president of Goldfields Ghana Limited, Mr Alfred Baku, has also decried the unfair tax regime in the country’s mining industry and the continuous tightening of the fiscal regime by government, explaining it could spell doom for the industry. Against this backdrop, the study sought to examine the effect of the current mining tax regime on the sustainability of AGA. To achieve these objectives, two financial directors of AGA were interviewed to solicit their views on the current mining tax regime and how it is impacting on the sustainability of the mining firm.

The questions posed and the responses given are transcribed and presented as follows:

4.5.1 Payment of taxes in addition to Regular Royalties.

Do you think the mining firms in Ghana should continue to pay tax in addition to the regular royalties they pay to the Government?

The respondents unanimously agreed that the mining companies in addition to the royalties they pay should be allowed to pay taxes as it is done in all parts of the world. According to them, this will go a long way to help the government generate enough revenue for developmental purposes. For instance one of the interviewees explained that the windfall tax (which is collected by the government when the mining firms are making supernormal profit) should be in place to help government benefit from heavy profits by mining firms.

Also they explained that Because foreign companies own the mining companies, failure to collect the taxes means that they will repatriate the profit to their home countries, leaving Ghana to wallow in abject poverty

4.5.2 Current Tax Regime in Ghana.

Briefly describe the current tax regime in the mining industry of Ghana. What are the benefits and setbacks of this regime?

The current tax regime in the mining industry of Ghana is captured by the Minerals and Mining Act, 2006. In this regime, mining companies are supposed to pay corporate tax (35%), capital gain tax (15%), withholding tax (15%), and capital allowances (20%) for five years. In addition to these taxes, mining companies are expected to pay 5% royalty on their total revenue every financial year.

4.5.3 The impact of mining tax regime on the operation of AGA.

Is the current mining tax regime having an impact on the operations of AGA? The researcher also wanted to find out if the current mining tax regime is impacting negatively on the operations of AGA. Both respondents responded in the affirmative. They explained that given the fluctuations in global gold prices, the current mining regime is not favourable to the mining firm. According to the interviewees, the mining industry is hardly able to break even given the current trends in global gold prices. This problem has been compounded by the current energy crisis that has affected the country for the past three years. The researcher understood from the interview that these twin factors (decline in gold prices and the energy crisis) is putting serious financial burden on the mining firm.

4.5.4 Modification of the current Tax Regime.

Based on your experience with the financial system of the company, do you think the current tax regime needs to be modified?

The researcher sought to find out if the mining firm believes the current mining tax regime needs to be modified to suit changing trends. The respondents agreed that it needs to be modified given the current problems in the mining industry. One of the interviewees explained that the mining tax regime should be modified to in accordance with changes in gold prices. He believes that the government should adjust the taxes downwards when gold prices are falling and review it upwards when gold prices are increasing. Also, they explained that government should extend some tax incentives to miners in order to relieve them of the current financial burden. This, the interviewee believe, will help stabilize the financial position of the mining industry and help them to remain in business

4.5.5 The Effect of Current Tax Regime on AGA

Is the Current Tax Regime Having an Effect on the Sustainability of the company (AGA)?

Having a vibrant and productive mining industry is important for the economy in terms of tax revenue for the government and reduction in unemployment. However, the mining industry in Ghana is struggling to survive given the current happenings in the sector. Against this background, the researcher sought to examine whether the current tax regime is having a negative effect on the sustainability of the mining firms. The interviewees explained that even though the current mining tax regime is having some level of negative impact on the finances and hence the sustainability of the mining industry, the major factor threatening the mining sector is the fall in gold prices. They explained that the fall has made it impossible for the mining firm (AGA) to remain competitive and stay in business. For instance, part of the Obuasi concession of AGA has been forced to shut down and

many workers lay off because of the decline in global prices of gold since the middle of 2012.

It was observed from the interview that given the current decline in gold prices, the sustainability of the mining industry, especially the mining firm of AGA can be enhanced if government reduce the tax burden of mining firms who are already burdened by the severe energy crises and high cost of operations. The researcher understood from the interview that even though the mining firm (AGA) is finding it difficult to sustain its operations given the current decline in gold prices, the situation has been worsened by the numerous tax burdens confronting the firm. Thus, reducing the tax burden will to some extent improve the financial performance of the mining firm and make it financially viable to continue operations.



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The analysis and interpretation of the results was undertaken in chapter four of this study. This chapter seeks to present the summary of the findings key emanating from the analysis. In addition, the chapter also provides a general conclusion to the entire study. Based on the findings, recommendations for key stakeholders are also made in this chapter.

5.2 Summary of Findings

The general objective of the study is to examine the effect of current mining tax regime on the sustainability of the mining industry in Ghana, especially AGA. Three specific objectives were examined. The first objective analyzed the taxes of the mining industry for the past 11 years (2004-2014). The second examined the profitability of AngloGold Ashanti (AGA) for the past 11 years. The third specific objective examined the effect of the current mining tax regime on the sustainability of AGA. The following are a summary of the main findings;

The analysis shows that trend of taxes paid for the past 3 years shows a drastic fall, especially in direct taxes. The fall in taxes is as a result of a fall in total revenue necessitated by the global decline in gold prices for the past three (3) years. The findings revealed that the fall in gold prices has affected the profitability of the mining firms, which has in turn affected the amount of taxes they are able to pay to the government and other interested parties.

The findings also show that AGA has been experiencing high volatility in profit for the past three years. This is shown by the high standard deviation values for the profit of the

company. Though the total profit of the company for the Iduapriem mines is positive over the past 11 years (\$32, 6184, 000), that of the Obuasi operations is negative (-\$127, 3000, 000). The downward trend in profit of the company, especially at Obuasi operations is attributed to high capital expenditure and global decline in the prices of gold for the past few years.

The researcher understood from the interview that even though the mining firm (AGA) is finding it difficult to sustain its operations given the current decline in gold prices, the situation has been worsened by the numerous tax burdens confronting the firm. Thus, reducing the tax burden will to some extent improve the financial performance of the mining firm and makes it financially viable to continue operations.

5.3 Conclusion

Ghana contributes significantly to the global gold production. It is the second largest producer of gold in Africa after South Africa and the 10th largest producer in the world.

As a result of Ghana's gold production capacity, mining companies in Ghana have contributed significantly to the economic development of Ghana over the years through the taxes and royalties they pay. Various mining tax regimes have been implemented since Ghana gained independence in 1957. Since 2012, mining companies in Ghana are being made to pay a number of taxes. These include corporate tax (35%), capital gain tax (15%), withholding tax (15%), and capital allowances (20%) for five years. In addition to these taxes, mining companies are expected to pay 5% royalty on their total revenue every financial year. While these taxes are expected to improve the revenue of government for developmental purposes, mining firms believe the current mining tax regime needs to be reviewed to reduce the burden on the already fragile industry. For instance, the Ghana

Chamber of Mines has warned that the tax burden is making it unprofitable for the mining industry, with several mines announced that it was ‘considering’ closing one of its mines. Also, the Vice president of Goldfields Ghana Limited, Mr Alfred Baku, has also decried the unfair tax regime in the country’s mining industry and the continuous tightening of the fiscal regime by government, explaining it could spell doom for the industry. Against this backdrop, the study sought to examine the effect of the current mining tax regime on the sustainability of the mining industry, especially in AGA. Both primary and secondary data were analysed. The study found that the amount of taxes paid by the mining firms has witnessed substantial decline due to rapid decline in global gold prices. The fall in gold prices, the study observed, has reduced the total revenue of the mining firms and hence the amount of taxes they are able to pay to the government. The study further found that the profitability of the AGA has declined tremendously due to the global fall in gold prices. The study also found that the current financial position is been worsened by the numerous tax burdens confronting the firm. Thus, reducing the tax burden will to some extent improves the financial performance of the mining firm and makes it financially viable to continue operations.

5.3 Recommendations

Based on the findings of the study, the following recommendations are made:

1. The study established that the current tax regime in the mining industry is affecting the sustainability of mining firms in Ghana. Given the important role played by mining firms, the study recommends that the government should review the current tax regime to minimize the current financial challenges facing the mining industry due to the fall in the global prices of gold and other minerals.

2. Second, the study recommends that since global prices of gold has a direct impact on the sustainability of mining firms, mining tax should be modified in accordance with changes in gold prices. For instance, the government should adjust the taxes downwards when gold prices are falling and review it upwards when gold prices are increasing.
3. The study further recommends that government should extend some tax incentives to miners in order to relieve them of the current financial burden. This will help stabilize the financial position of the mining industry and help them remain in business
4. The study further recommends that futures studies should include all mining firms in Ghana in order to obtain a more comprehensive and comparative analysis.

REFERENCES

- Akabzaa, T. (2000). *Boom and Dislocation: The Environmental and Social Impacts of Mining in Wassa West District of Ghana*. Third World Network, Accra, Ghana.
- Anglo American: “Report to Society 2006: Anglo American, A climate of change”
- Aryee, B.N.A. (2000). Ghana’s mining sector: its contribution to the national economy *Resources Policy*, 27: 61-75.
- Bofah K., (2003). *The Impact of Tax on Investment and Business Decisions*.
http://www.ehow.com/facts_5910416_impact-tax-investment-business-decisions.html
- Bougrand L, Boko, Mlachila (2002). “The Choice Between external and Domestic Debt in Financing Budget Deficits The Case of Central and Kefela 105 West African Countries “– IMF working paper No. 02/79. *The Choice Between External and Domestic Debt in Financing Budget Deficits - The Case of Central and West*

African Countries (May2002). IMF Working Paper No. 02/79 Available at SSRN:
<http://ssrn.com/abstract=879599>

Bretschger, L. (2010). Taxes, mobile capital, and economic dynamics in a globalizing world. *Journal of Macroeconomics* 32, 594–605.

Carroll, R., and Prante, G. (2012). “The Flow-Through Business Sector and Tax Reform: The economic footprint of the flow-through sector and the potential impact of tax reform,” An Ernst & Young LLP report prepared for the S Corporation Association.

Christina, D. R., and H. R. David. (2007). The Macroeconomic Effects of Tax Changes: Estimates Based on New Measure of Fiscal Shocks. *NBER Working Paper* 13264.

David Duff et al, *Canadian Income Tax Law*, 3rd edition (Toronto: LexisNexis Butterworths, 2009) *The Socio-Economic impacts of Artisanal and Small-Scale*

Mining in Developing Countries, ed. by Galvin M. Hilson (The Netherlands,

Sweets & Zeitlinger B.V., Lisse, 2005) , at 40,

Freebairn, J & Quiggin, J. (2010). "Special Taxation on the Mining Industry." *Economic Papers*, December 2010: 384-396. Page 386

Garnaut, R. (2010). “Principles and Practice of Resource Rent Taxation”, *Australian Economic Review*, 43:pp. 347-356.

Ghana Chamber of Mines, 2008. Publications Media Releases & Speeches. [online] Available at: <http://www.ghanachamberofmines.org/site/publications/> [Accessed 7 April 2012]

Hilson, G. and Potter, C. (2003). Why is illegal gold mining activity so ubiquitous throughout rural Ghana? *African Development Review*, 15(2): 237-270.

International Council on Mining & Metals (ICMM) and Commonwealth Secretariat, Minerals Taxation Regimes: A review of issues and challenges in their design and application / The Challenge of Mineral Wealth: using resource endowments to foster sustainable development (UK, London: ICMM, 2009), p. 10.

Kapstein, E., & Kim, R. (2011). The Socio-Economic Impact of Newmont Ghana Gold Limited. *Haarlem* , 13

- Kefela, G. T. (2009). Reforming tax polices and revenue mobilization promotes a fiscal responsibility: A study of east and West African states. *Journal of Law and Conflict Resolution* Vol. 1(5), pp. 098-106,
- Lins, C. & Horwitz, E. (2007). Sustainability in the Mining Sector.
- Mahdavi, S. (2008). The level and composition of tax revenue in developing countries: Evidence from unbalanced panel data. *International Review of Economics and Finance* 17 , 607–617.
- Mason, R. and Knoll, M.S. (2012). “What is Tax Discrimination?” 21 *Yale Law Journal*
- Ministry of Mineral Resources, 2010. African Governments seek bigger share from mining activities: Available at:
http://www.sminerals.org/content/index.php?option=com_content&view=article&id=13&Itemid
- Mitchell, P. (2010). Taxation and Investment Issues in Mining. Advancing the EITI in the Mining Sector; pg. 27 – 31
- Osei (2006). Speech Delivered By the Commissioner of Internal Revenue, at the Re-Launch of the Tax Stamp, Thursday, 28th September
<http://www.mofep.gov.gh/taxstamp.pdf>
- Otto, James, et al. (2006). Mining Royalties : A Global Study of Their Impact on Investors, Government, and Civil Society. Washington, DC: World Bank, 2006.
- Oxford Policy Management, Minerals Taxation Regimes (2009). A review of Issues and Challenges in their Application, (Commonwealth Secretariat - *International Council of Mining and Metals*
- Pagunta, (2009). Ghana Earning Royalties And Corporate Tax From Gold Mining Companies. [online] Available at:
<<http://paguntaka.org/2009/05/05/ghanaearning-royalties-and-corporate-taxfrom-gold-mining-companies/>> [Accessed 10 October 2011]
- Pfister, M. (2009). Taxation for Investment and Development: An Overview of policy challenges in Africa. *Nepad-OECD African Investment Initiative*

- Pratt, C. (2005). "Is it convenient to modify the fiscal tax regime to increase the earnings of the chilean state derived from private mining activities?" (2005) 15:9 *The Centre for Energy, Petroleum and Mineral Law and Policy Internet Journal*
- Revenue Watch Institute, (2011). Extractive Industries. Available at: <http://revenuewatch.org/our-work/countries/ghana/extractiveindustries>[Accessed September 20, 2012]
- Ross, M.L. (2001). "Does oil Hinder Democracy?" (2001) 53:3 *World Politics* 325.
- Singh, N., Koku, J.E. and Balfours, B., (2007). Resolving Water Conflicts in Mining Areas of Ghana Through Public Participation A communication Perspective. *Journal of Creative Communications* [e-journal] Available through: Ashesi University College database [Accessed 10 April 2012]
- Stickler A, 2006 Ghana's ruthless corporate gold rush. BBC File On 4. Available at http://news.bbc.co.uk/1/hi/programmes/file_on_4/5190588.stm [accessed 25 July 2006].
- Tanzi, V. (1989). The impact of macroeconomic policies on the level of taxation and the fiscal balance. *International Monetary Fund Staff Papers* 36, 633-656.
- Tordo, S. (2007). Fiscal Systems for Hydrocarbons: Design Issues, The World Bank Working Paper 123, Washington D.C.

APPENDICES

APPENDIX A

Table 4.1 Gold prices Changes over the past 15 years.

Year	Price(\$per ounce)
2000	279.11
2001	271.04
2002	309.73
2003	363.38
2004	409.72
2005	444.74
2006	603.46
2007	695.39
2008	871.96
2009	972.35
2010	1,224.53
2011	1,571.52
2012	1657.51
2013	1,411.51
2014	1,220.00

APPENDIX B

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

KNUST SCHOOL OF BUSINESS

INTERVIEW GUIDE (For Management)

Dear Respondent,

An academic research is being conducted on ‘**The effect of taxes on the sustainability of mining firms in Ghana**’. You can contribute to make this study a success by providing responses to the questions in this instrument. All information you provide will be treated confidentially and shall be used for academic purposes only.

Thank you.

Position in the Company

Question 1

Do you think the mining firms in Ghana should continue to pay tax in addition to the regular royalties they pay to the Government?

Please explain your answer

Question 2:

Briefly describe the current tax regime in the mining industry of Ghana. What are the benefits and setbacks of this regime?

Question 3

Is the current mining tax regime having an impact on the operations of AGA?

Please explain your answer

Question 4

Do you think the current tax regime favour the mining industry?

Please explain your answer.

Question 5

Based on your experience with the financial system of the company, do you think the current tax regime needs to be modified?

Please explain your answer

Question 6

Is the Current Tax Regime Having an Effect on the Sustainability of the company (AGA)? If yes, in what way?

APPENDIX C

DESCRIPTION	USDm	Calendar years											Total
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
DIRECT TAX PAID													
Income tax paid	-	-	0.79	4.26	-	3.53	6.07	37.53	8.72	2.82	-	-	63.7
Withholding tax	0.77	0.32	0.30	0.42	0.89	0.88	0.94	3.55	3.62	1.74	0.95	14.2	
Royalties	2.93	2.62	3.47	3.70	4.90	4.99	6.40	9.17	8.98	8.93	8.13	64.2	
Dividend	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL DIRECT TAX PAID	0	3.70	2.94	4.56	8.38	5.59	9.40	13.40	50.25	21.32	13.49	9.07	142.1
INDIRECT TAX													
Customs duties	0.44	0.64	0.44	0.62	3.09	1.24	1.85	1.17	1.34	1.26	0.89	13.0	
Compensation	0.17	0.27	0.35	0.04	0.50	0.73	0.12	1.21	1.26	1.14	1.42	7.2	
State pension scheme	0.31	0.34	0.40	0.51	0.56	0.73	0.84	0.77	0.81	1.36	1.32	8.0	
Payroll taxes (PAYE/SITE)	0.03	0.54	0.57	0.76	1.12	2.11	1.86	2.56	2.78	3.15	3.21	18.7	
Skills development levy	-	-	-	-	-	-	-	-	-	-	-	-	
VAT not claimed	0.08	0.09	0.13	0.11	0.15	0.16	0.21	0.19	0.20	0.22	0.26	1.8	
Local government rates and taxes	0.03	0.03	0.03	0.07	0.05	0.05	0.05	0.08	0.15	0.27	0.19	1.0	
Other - national construction levy	0.53	-	0.59	-	-	-	-	-	-	-	-	1.1	
TOTAL INDIRECT TAXES	0	1.60	1.91	2.50	2.11	5.46	5.02	4.93	5.98	6.54	7.39	7.30	50.7
TOTAL TAXES PAID BY MINING	0	5.29	4.84	7.06	10.49	11.05	14.42	18.33	56.23	27.86	20.88	16.38	192.8

**AGA Ghana Operations Profit after Tax since merger
From Years 2004 to 2014**

Profitability	AGA (Ghana)Ltd (Obuasi- Gold House)	AGA (Iduapriem)Ltd & Tebereable Goldfields Ltd		Total Ghana Operations	1% Profit (Loss) after Tax		1% Profit after Tax
		US\$	US\$		US\$	US\$	
2004	17 100 000	16 812 000	33 912 000	339 120	339 120		
2005	-95 200 000	9 930 000	-85 270 000	-852 700	0		
2006	73 200 000	28 970 000	102 170 000	1 021 700	1 021 700		
2007	-61 000 000	36 991 000	-24 009 000	-240 090			
2008	-20 400 000	7 322 000	-13 078 000	-130 780			
2009	-26 500 000	59 224 000	32 724 000	327 240	327 240		
2010	55 400 000	52 757 000	108 157 000	1 081 570	1 081 570		
2011	83 100 000	71 520 000	154 620 000	1 546 200	1 546 200		
2012	-247 900 000	54 165 000	-193 735 000	-1 937 350	0		
2013	-793 900 000	-31 005 000	-824 905 000	-8 249 050	0		
2014	-256 900 000	19 498 000	-237 402 000	-2 374 020	0		
Total	-1 273 000 000	326 184 000	-946 816 000	-9 468 160	4 315 830		