

# MINERAL AND PETROLEUM RESOURCES ROYALTY ACT: THE IMPACT ON THE FISCAL AND MINING INDUSTRY IN SOUTH AFRICA

by

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## **ABSTRACT**

# **MINERAL AND PETROLEUM RESOURCES ROYALTY ACT: THE IMPACT ON THE FISCAL AND MINING INDUSTRY IN SOUTH AFRICA**

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The implementation of the Mineral and Petroleum Resources Royalty Act was anticipated to have a significant impact on the South African economy and mining industry.

The mineral royalty is an effective instrument in the collection of compensation for extraction of mineral resources that cannot be renewed. An overview of the development, evolution and application of the mineral royalty indicated that the newly enacted Mineral and Petroleum Resources Royalty Act has constituted a more formal regulative system in determining the royalty amount payable. Various fundamental principles have been established in the act, such as distinguishing between refined and unrefined mineral resources, different royalty formulae to be applied to each of mineral resources and circumstances resulting in a mineral royalty obligation.

The South African mining industry has been a cornerstone in forming the economy for many years. The industry has on average contributed approximately 8.8% directly to the country's gross domestic product during 2011. The potential impact by the new royalty reform was predicted by researchers to impact mining operations' profitability between 2% and 5%, whilst the sector's contribution to total taxes was expected to rise by 8%.

The actual impact of the Mineral and Petroleum Resources Royalty Act on the country's fiscal and mining industry was reviewed to determine just how many circumstances have changed in South African mining, if any. The research study has found that although there has been an impact it was not as significant as anticipated.

### **Key words:**

Mineral and Petroleum Resources Royalty Act  
Mineral royalty  
Mining industry  
South African economy  
Mineral resources

## **OPSOMMING**

# **MINERALE EN PETROLEUM RESERWES TANTIEME WETGEWING: DIE IMPAK OP DIE EKONOMIE EN MYNINDUSTRIE IN SUID AFRIKA**

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Die implementering van die Minerale en Petroleum Reserwes Tantieme Wet sou na verwagting 'n groot impak op die Suid-Afrikaanse ekonomie en die mynbedryf hê.

Minerale tantieme is 'n doeltreffende instrument in die invordering van vergoeding vir die ontginning van minerale hulpbronne wat nie hernu kan word nie. 'n Ondersoek oor die ontwikkeling, evolusie en toepassing van minerale tantieme het aangedui dat die onlangse Wet op Minerale en Petroleum Reserwes Tantieme 'n meer formele regulerende stelsel teweeggebring het in die bepaling van tantieme betaalbaar. Verskeie fundamentele beginsels word onderskryf deur die Wet, soos die onderskeid tussen verwerkte en onverwerkte minerale hulpbronne, verskillende tantieme formules toepaslik op elk van die minerale hulpbronne en omstandighede wat lei tot 'n mineraal tantiem verpligting.

Die Suid-Afrikaanse mynbedryf was 'n hoeksteen in die ontwikkeling van die ekonomie vir baie jare. Die bedryf het gemiddeld ongeveer 8.8% direk bygedra tot die land se bruto binnelandse produk gedurende 2011. Navorsers het voorspel dat die potensiële impak van die nuwe mineraalhervorming mynbou se winsgewendheid met tussen 2% en 5% sou beïnvloed, terwyl die sektor se bydrae tot die totale belasting na verwagting sou styg met 8%.

Die werklike impak van die Minerale en Petroleum Reserwes Tantieme Wet op die land se ekonomie en mynbedryf was hersien om vas te stel presies hoeveel omstandighede verander het in Suid-Afrikaanse mynbou, indien enige. Die studie het bevind dat selfs al het die nuwe tantieme stelsel 'n impak gemaak op Suid-Afrika, dit nie so wesenlik was soos verwag nie.

### **Slutelwoorde:**

Minerale en Petroleum Reserwes Tantieme Wet  
Minerale tantieme  
Mynbedryf  
Suid-Afrikaanse ekonomie  
Mineralehulpbronne

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## CHAPTER 1

### INTRODUCTION

#### 1.1 BACKGROUND

Rent can commonly be defined as compensation paid to an owner or landlord for the utilisation of property. Most people pay rent at some point in their lives, whether it was for accommodation, furniture, equipment *et cetera*. The law of rent was developed by David Ricardo (1821), a British political economist, who established that rent was to be paid to a landlord for the utilisation of the original and indestructible powers of the soil, that portion of produce of the earth. His theory illustrated that if all land was unlimited in quantity, consistent in quality and had similar characteristics, compensation cannot be charged for such land, unless it possesses peculiar advantages (Ricardo, 1821). This rent principle best explains the theory of mineral royalties across the world (Cawood, 2010:200).

Internationally, governments have revised their tax regimes applicable to the mining industry in an attempt to remedy budget deficits that arose from the economic crisis (Henrico, 2012:16). Mineral royalty is one of the forms of government income from mineral exploitations. Mineral royalties are compensation which is paid to owners because of property use and transferring of mineral ownership to another party (Cawood, 2010:200). It is considered to be one of the oldest and most effective mining taxes that governments utilise to attract foreign investment and promote their mineral industries. On the other hand, mineral royalties can also have an impact on mine profitability (Cawood and Macfarlane, 2003:214). Investors are constantly seeking the best possible financial return on their investments and therefore it is generally understood that they would be reluctant to invest in a country that is richly endowed with minerals but has excessive mineral royalty rates (Otto, Andrews, Cawood, Doggett, Guj, Stermole and Tilton, 2006:12). It is therefore important for governments of developing countries to establish royalty rates that are competitive to attract the necessary investment to endorse their country's economy. South Africa has implemented a new royalty regime during 2010.

South Africa's Mineral and Petroleum Resources Royalty Act (28/2008) (MPRRA) was promulgated in November 2008 and became effective on 1 March 2010. Its purpose is the imposition of royalty charges for depletion of the country's public mineral resources (Cawood, 2011:443). For decades now, significant mineral wealth has been realised in South Africa consisting of gold, diamonds, platinum, coal, to name but a few. It is therefore no surprise that the mining industry's contribution to the economy is quite noteworthy. The implementation of a royalty obligation on the mineral sector impacted a number of stakeholders, namely government, the public sector, the mining industry as a whole, mining companies, investors in current mining projects as well as potential investors in mining. Therefore, it is crucial to study the impact of the new royalty reform over the past years since its implementation.

Several studies have been conducted over the past decade as the South African royalty legislation developed and was signed into law in 2008 (Cawood, 2007; Cawood, 2008; Van der Zwan; 2010b). Henrico (2012) studied the impact of the newly enacted MPRRA since its effective date.

## **1.2 PROBLEM STATEMENT**

Since the development stages of the South African royalty regime, it was clear that the then proposed mineral royalty charge would have a significant impact on the South African mining industry (Cawood and Macfarlane, 2003:214). This was confirmed by the mining industry's reaction indicating that no type of mining tax caused as much controversy as mineral royalties (Otto *et al.*, 2006:1). By imposing mineral royalties as a percentage of a mining operation's revenue, it can be expected that profitability will be influenced due to the additional cost burden placed upon mining operations to produce precious minerals and still remain profitable.

Considering the impact on the fiscal, one can envisage changes such as additional revenue income for government leading to the mining industry contributing even more than before. Administrative issues also come into play as the collection of these royalties has to be administered more formally than before.



Cawood (2011) established the potential impact of mining royalties on state revenues and industry affordability whilst Henrico (2012) studied the impact that the MPRRA had on the earnings of mining companies, as well as whether the reduced royalty rate for beneficiated resources would result in miners becoming refiners.

This study proposes to establish whether the impact that was predicted when imposing the MPRRA has in fact influenced the South African mining industry so drastically.

### **1.3 PURPOSE STATEMENT**

This research objective is to study the impact that the MPRRA has had on the South African fiscal situation due to an additional income stream (in the form of mining royalties), as well as the effect on the mining industry as a result of increased monies payable to government (apart from other mining taxation and existing royalty agreements).

### **1.4 RESEARCH OBJECTIVES**

The study will be guided by the following specific research objectives:

- to review the most recent literature and contextualise the aspects of the new royalty regime into a logical format;
- to establish the impact of the mineral royalty on South Africa's economy; and
- to determine how the implementation of the MPRRA influenced the mining industry.

### **1.5 DELIMITATIONS**

The research proposal has certain delimitations relating to the context and construct thereof.

- Firstly this study is limited to the royalty charges applied to the mining and petroleum resources sector only.
- Secondly it considers the mineral royalty regime in South Africa and not in detail the different mineral royalty systems applied worldwide.

- Thirdly it is not the purpose of this study to analyse mining taxation in South Africa as a whole and therefore it primarily focuses on mining royalties.

## 1.6 ASSUMPTIONS

The research proposal makes certain assumptions about mineral royalties, behaviour of stakeholders involved in the MPRRA and the impact thereof.

Firstly, the study assumes that mineral royalties in South Africa will have a unique effect which will differ from other countries who have also in recent years implemented new royalty regimes. This is because South Africa is a distinctive country with a somewhat extraordinary history, diversity of cultures and a future with set objectives (Otto *et al.*, 2006).

The second assumption is that all mining operations in South Africa have been duly registered for and will comply with the regulations of the MPRRA.

Thirdly, the study assumes that all mining operations in South Africa will respond in the same manner towards the implementation and functioning of the new mineral royalty regime. It is assumed that, because of the mineral royalty having a direct cost implication, mining companies will reconsider the probability of maintaining profitable operations and reassess any future projects' potential in the country.

The fourth assumption is that government will welcome the additional income stream from mineral royalties and would seek the highest possible benefit through the execution of royalty charges.

## 1.7 DEFINITION OF KEY TERMS

A number of key definitions have been used in this study. These definitions have been set out below.

**Mineral:** The term ‘mineral’ has been defined in chapter 3 of the Mineral and Petroleum Resources Development Act of South Africa (28/2002) (MPRDA) to be any substance, whether in solid, liquid or gaseous form, occurring from the earth or water which was formed by a geological process excluding water, petroleum or peat.

**Mineral royalty:** A mineral royalty can be defined in a number of ways. For purposes of this study, a mineral royalty can be described as “payment to the holder of the mineral rights when minerals are extracted from the land and sold on the markets” (Cawood and Macfarlane, 2003:214).

**Refined mineral resource:** A refined mineral resource is any resource listed solely in Schedule 1 or in Schedule 1 and Schedule 2 of the Mineral and Petroleum Resources Royalty Act (28/2008) that has been refined to or beyond the condition specified in Schedule 1 for that mineral resource.

**Transfer:** Section 1 of the Mineral and Petroleum Resources Royalty Act (28/2008) describes the term ‘transfer’ as “the disposal, ... consumption, theft, destruction or loss of a mineral resource, other than by way of flaring or other liberation into the atmosphere during exploration or production, if that mineral resource has not previously been disposed of, consumed, stolen, destroyed or lost”.

**Unrefined mineral resource:** An unrefined mineral resource is any resource listed solely in Schedule 2. It also includes a mineral resource in Schedule 1 and Schedule 2 that has not been refined to or beyond the condition specified in Schedule 1 for that mineral resource.

The abbreviations used as part of this research proposal have been set out in Table 1 on page 6.

**Table 1: Abbreviations used in this document**

<b>Abbreviation</b>	<b>Meaning</b>
CGT	Capital gains tax
CIT	Company income tax
DMR	Department of Mineral Resources
EBIT	Earnings before interest and tax
GDP	Gross domestic product
MPRDA	Mineral and Petroleum Resources Development Act of South Africa (28/2002)
MPRRA	Mineral and Petroleum Resources Royalty Act of South Africa (28/2008)
MPRRAA	Mineral and Petroleum Resources Royalty Administration Act of South Africa (29/2008)
PIT	Personal income tax
RSA	Republic of South Africa
SARS	South Africa Revenue Services
Stats SA	Statistics South Africa
US\$	United States dollar currency
VAT	Value-added tax
ZAR	South African Rand currency

## **1.8 RESEARCH DESIGN**

An extended literature review was chosen as the research design method for this mini-dissertation. Various sources of information including legislation, books, academic and non-academic articles, dissertations and journals were consulted for the study to gain information on the royalty regime. The sources contained various aspects of implications of the MPRRA and provided adequate information regarding issues experienced with royalties. Published secondary data was utilised to analyse the contribution and effect that royalties have had on different stakeholders in South Africa. These data are statistical of nature and include publications from the Chamber of Mines, National Treasury and SARS.

Prior to the implementation of the MPRRA researchers anticipated how important the impact of the royalty regime would be on South Africa and the relevant stakeholders in the mining industry. Since its implementation, studies have been conducted on what the impact would have been if the regime had been in place prior to 2010. This information together with National Treasury's reported and expected return on mineral royalties

provided adequate insight to justify writing this mini-dissertation in the form of a literature review.

## **1.9 AN OVERVIEW OF THE CHAPTERS**

The objective of chapter two is provide a synopsis of the historical treatment of mineral royalties in South Africa. Secondly, an overview of the development of the new royalty regime is considered before studying the elementary principles detailed in the MPRRA.

In chapter three the impact of the implementation of the MPRRA on the South African fiscal position as well as the South African mining industry will be analysed.

Chapter four provides a summary of the findings of the research and the conclusion of the research findings. Based on the conclusion, recommendations for further research in this field of study, if any, will be presented.

## CHAPTER 2

### MINERAL ROYALTY LEGISLATION IN SOUTH AFRICA

The purpose of this chapter is to explain how the mineral royalties' development, evolution and application in South Africa have transformed over the years. This will provide a basis for researchers' anticipation of a significant impact of the MPRRA's implementation. The chapter commences with a brief summary of mineral resource taxation as a whole before focus shifts to mineral royalties, one of the most recently employed mining taxation methods.

#### 2.1 TAXATION OF THE MINERAL RESOURCE SECTOR

The continuing contribution of the mining industry to South Africa's economy has increasingly led to the government's endless seeking of new ways to share in the wealth created by this industry. As is explained by Otto *et al.* (2006:8), the share of wealth created by mining which flows to government will increase as more government taxes are imposed on the mineral sector. From another point of view, the mining companies creating wealth will share less in the returns being created (Otto *et al.*, 2006:8).

Various studies conducted on evaluating the synergy between investors and the government recognise that the most contentious issue is the way of sharing in the wealth creation (Cawood, 1999:4). Based on the observations from previous research, it is vital for a tax regime to be optimal for most of the stakeholders involved to ensure the necessary investment flowing towards a country to maximise capital and economic growth and thereby indirectly empower a country's populace (Otto *et al.*, 2006:8).

The mineral sector in South Africa is obliged to pay a wide variety of taxes which contribute to the total tax register. The most well-known taxes are:

- income taxes including capital gains tax (CGT) in accordance with the Income Tax Act;
- Value-Added tax (VAT); and

- withholding taxes on dividends (which replaced Secondary Tax on Companies as from 1 April 2012).

With effect 1 March 2010, mineral royalties have become payable to the South African Revenue Service (SARS) for the extraction of mineral resources.

As this study particularly involves mining royalties, the focal point will now shift towards the definition of minerals in the context of mining royalties. Subsection 2.2.1 deals with the development, evolution and historical application prior to the implementation of the new royalty regime. After that the development of the new system will be examined before describing some of the fundamental principles in calculating the mining royalty amount.

## **2.2 THE MINING ROYALTY**

Minerals are defined as any substance, whether in solid, liquid or gaseous form, occurring from the earth or water which was formed by a geological process excluding water, petroleum or peat (section 1 of the MPRRA). Minerals are also commonly referred to as mineral resources and are extremely valuable commodities.

Mineral resources are non-renewable; therefore there is only one opportunity to extract a mineral from the earth. Consequently mineral resources are precious to the owner of any form of resource. The levying of mineral royalty charges serves to reimburse the owner of a non-renewable resource when it is extracted from the ground.

South Africa's mining royalty has evolved in recent years, specifically with regards to mineral right owners, administration thereof and the calculation of mining royalties payable. The following subsections serve to study, analyse and evaluate the evolution of the mineral royalty.

### **2.2.1 History of mineral royalties in South Africa**

Prior to analysing the most recent enacted royalty method that came into effect in 2010, it is essential to consider the system that previously regulated mineral rights ownership in

South Africa. Van der Zwan (2010b:2) points out that numerous alternatives existed as to the possession of surface and mineral rights. Mineral rights either vested in private owners or the state, ranging from a company or an individual to a group of individuals (Cawood and Macfarlane, 2003:215).

Mining companies had a number of options when obtaining rights for exploration (Cawood and Macfarlane, 2003:215). Privately-owned mineral rights could be purchased in their entirety resulting in rights being classified and registered as immovable property by the South African Deeds Office and purchasers thereof not having to pay royalties over the life of a mining project. When a mineral rights owner refused to sell the mineral rights, negotiations were undertaken to agree on a suitable royalty package with the owner. The responsibility of the state in these private agreements were restricted to issuing and administering of licences for prospecting and mining activities and ensuring obedience to health, safety and environmental requirements. Except for taxes, the state was not permitted to share in the compensation agreed upon in these contracts (Cawood and Macfarlane, 2003:216). Mineral lease agreements were entered into between a mining company and the state when mineral rights were state-owned. As a result mineral royalties was then payable to the state (Van der Zwan, 2010b:2).

The above implies that there was no standardised or consistent legal system governing terms and conditions that were specific to the acquisition of mineral rights from either private owners or the state. This provided investors and mining companies with the opportunity to bargain royalty rates according to their specific situation. This method gave the impression of being effective in attracting the necessary investment in the country; however, one doubts whether it provided adequate control in the protection of mineral property.

### **2.2.2 Overview on the development of the new royalty regime**

A dynamic shift in ownership, management and development of South Africa's mineral heritage was instigated with the inauguration of the new political dispensation in 1994 (Cawood, 2004:53). This led to the enactment of the Mineral and Petroleum Resources



Development Act (28/2002) (here after referred to as the MPRDA). The purpose of the MPRDA was to bring change to the existing legislation applicable to the mineral sector.

Section 3 of the MPRDA notes that one of its primary viewpoints is that mineral and petroleum resources are the common heritage of all South African citizens and that the state is the custodian of these resources. According to section 3(2) the state would act as custodian of the nation's mineral and petroleum resources and could determine and levy any fee or consideration in consultation with the Minister of Finance. This provision paved the way for the development of legislation allowing the state to collect compensation for the utilisation of the country's mineral and petroleum resources (Van der Zwan, 2010b:3).

Across the world, governments utilise mineral royalties as an instrument to impose taxation charges on the exploitation of non-renewable resources by mining companies. Otto *et al.* (2006:19) defines a mineral royalty as compensation payable to the proprietor of non-renewable resources for its replenishment and subsequent benefit creation. Alternatively, a mineral royalty serves as remuneration to the mineral rights holder in the event of minerals being extracted from the earth and sold on the markets (Cawood and Macfarlane, 2003:214).

The mineral royalty was designated by National Treasury as the fiscal instrument to collect compensation for the exhaustion of the nation's mineral and petroleum resources. The MPRRA was developed to give effect to the fiscal instrument in the form of a royalty charge. It took several years and four drafts of legislation before the MPRRA was finally endorsed in 2008.

### **2.2.3 Fundamentals of the new royalty regime**

Promulgated in 2008, the MPRRA became effective on 1 March 2010 whereby it would impose a royalty on the transfer of mineral resources as of that date. The Mineral and Petroleum Resource Royalty Administration Act (29/2008) (MPRRAA) was tabled together with the MPRRA. The MPRRAA serves to provide for administration guidance with the imposition of mineral royalties.

From the preamble of the MPRRA it is clear that a royalty is imposed on the **transfer** of mineral resources. The term 'transfer' is the key as it triggers the royalty obligation (Cawood, 2010:203). A transfer is defined by the MPRRA as the disposal of a mineral resource or the consumption, theft, destruction or loss of a mineral resource. It does not include flaring or other liberation into the atmosphere during exploration or production. Only the first transfer of mineral resources prompts a royalty charge; subsequent transfers of resources do not constitute a royalty obligation. Therefore a mineral resource will only be taxed once and not on subsequent transactions qualifying as a 'transfer' of a mineral resource. Mineral resources are often temporarily exported for refining; this temporary export is not regarded as a transfer in terms of the MPRRA (Strydom, 2012:1).

The MPRRA is applicable to mineral and petroleum resources only and a royalty is payable in the event of a mineral resource being transferred. The definition of a mineral resource in the MPRDA includes prospecting rights for minerals, exploration rights for petroleum, mining permits, retention permits or mining rights for minerals (section 1).

Two broad categories of mineral resources have been established in the MPRRA, namely refined mineral resources and unrefined mineral resources:

- A **refined** mineral resource is one that is solely listed in Schedule 1 of the MPRRA or listed in Schedule 1 and Schedule 2 that has been refined to or beyond the condition specified in Schedule 1 for that mineral resource. Refined mineral resources have been processed to some high purity levels and examples would typically be gold (processed to at least 99.5% purity) and platinum group metals (processed to at least 99.9% purity); and
- An **unrefined** mineral resource is a mineral resource listed solely in Schedule 2 of the MPRRA; or a dual listed mineral resource that fails to meet the condition specified in Schedule 1 for that mineral resource. Unrefined minerals are basically raw resources that have not undergone further processing; examples of unrefined mineral resources include coal of specific grades, and rough diamonds.

Given the terms and conditions as to when mineral royalties become payable and a distinction between two types of mineral resources, one needs to understand how the royalty amount is calculated.

The royalty amount is calculated as the **royalty rate** multiplied by the **royalty base** (Cawood, 2010:203). The royalty rate is determined by way of a formula whilst the royalty base consists of gross sales at arm's-length prices excluding allowable deductions over a 12 month assessment period. An arm's-length value is the open market value that could have been obtained for the relevant mineral resources in the ordinary course of business between independent parties so as to prevent any conflict of interest in the transaction.

Section 4 of the MPRRA specifies the royalty formula to be applied in determining the royalty rate. One has to distinguish between refined and unrefined mineral resources before applying the formula as different royalty rates have been established for the two broad categories of mineral resources. Table 2 summarises the royalty formulas as set out in section 4(1) and 4(2) of the MPRRA for refined and unrefined mineral resources respectively.

**Table 2: Royalty rate formulae for refined and unrefined mineral resources**

<b>Category</b>	<b>Formula</b>	<b>Limited to:</b>
Refined	$0.5 + (\text{earnings before interest and taxes} / [\text{gross sales of refined minerals} \times 12.5]) \times 100$	<b>5%</b>
Unrefined	$0.5 + (\text{earnings before interest and taxes} / [\text{gross sales of refined minerals} \times 9]) \times 100$	<b>7%</b>

From the above formulas listed in Table 2 it can be determined that the royalty rate fluctuates according to income. Thus, instead of applying a fixed royalty rate for each mineral product, the royalty rate varies according to profitability. The lowest rate payable is 0.5% for both refined and unrefined mineral resources, whilst the maximum rates have been set at 5% and 7%. The maximum (applicable during profitable times) and the minimum (applicable during economic downturns) rates reflect the state's willingness to share in both the profits and risks of mining (Cawood, 2010:204).

Table 2 also shows that the royalty rate for refined minerals is less than that of unrefined minerals, providing a benefit to mining operations for additional expenditure incurred in refining minerals. The fact that a lower rate is available for refined minerals makes it questionable whether the incentive would be enough to encourage mining companies to

start benefiting mineral resources rather than paying increased royalties on unrefined minerals. This concept was analysed by Van der Zwan and is illustrated in Table 3.

**Table 3: Royalties on refined and unrefined minerals**

Description	Reference	Refined (ZAR)	Unrefined (ZAR)
<b><u>Information:</u></b>			
Gross sales value		3 200	1 500
<b>Less</b> extraction cost (excluding depreciation)		(900)	(900)
<b>Less</b> processing cost (excluding depreciation)		(800)	0
<b>Less</b> wear and tear		(500)	(300)
<b>EBIT</b>		<b>1 000</b>	<b>300</b>
<b><u>Determinants of the charging formula:</u></b>			
Gross sales value	1	3 200	1 500
EBIT	2	1 000	300
0.5% of gross value	3	0.5%	0.5%
Factor	4	12.5	9
Cap	5	5%	7%
<b>Charging formula <math>[(2/1 \times 4) \times 100 + 3]</math></b>	6	<b>3%</b>	<b>2.7%</b>
Royalties payable (1x6)	7	96	41
Royalties as percentage of EBIT (7/2x100)	8	9.6%	13.7%

Source: Van der Zwan in Henrico (2012:10)

A basic calculation of mineral royalties' payable under the MPRRA for both refined and unrefined minerals is illustrated in Table 3.

The term *earnings before interest and taxes* (EBIT) was defined in section 5 of the MPRRA. It is parallel to the figure determined for financial reporting purposes in terms of the International Financial Reporting Standards; however it only includes expenditure incurred directly to the winning, recovery and developing of refined and unrefined minerals. In the event of EBIT being negative, it has to be deemed zero to prevent reducing the minimum rate of 0.5%.

The royalty base in calculating the royalty amount payable consists of gross sales without taking into account expenditure incurred in respect of transport, insurance and handling costs of the respective mineral resources (section 6 of the MPRRA). The aim is to identify the income attributable to the winning and recovery of mineral resources up to their saleable condition.

The royalty base and royalty rate as determined in accordance with the formula in Table 1 are multiplied to compute the royalty amount payable.

Table 3 indicates that mineral royalties for refined minerals equal more than double those of unrefined minerals. Royalties as a percentage of EBIT provides for a more reasonable comparison putting it in context with earnings before interest and taxes.

The capped rate of 5% and factor of 12.5 for refined minerals (rather than 9 for unrefined minerals) are supposed to promote beneficiation. According to Van der Zwan (2010b:75), an increase in the factor will result in a decrease in the royalty rate and as such, as long as the increase in gross sales value of minerals as a result of further processing was less than 38% (12.5 divided by 9), it would provide an incentive for an extractor to process mineral resources further. Thus an increase in the gross sales value that exceeds 38% would result in a higher royalty liability if the mineral resource is refined. However this analysis assumed that EBIT will remain unchanged even when the mineral resource is refined and hence it is not practical or feasible in the mining industry.

Cawood (2011:451) investigated whether the reduced rate for refined minerals is sufficiently attractive by applying Bradley's scheme which takes into account value-addition costs (refinement costs) as well as the target level of profitability. The Bradley scheme emphasises that standardisation and consistency are interconnected and a single set of rules should accommodate a diversity of situations; therefore it should be flexible. Conclusions derived from Cawood's study are the following:

- In the event that refinement costs represent more than 20% of the sales price, very little value is added and the costs to refine are probably not justified.
- If refinement costs represent 10% of the sales price, significant value is added and it would be favourable to the mining operation to refine because costs are justified.

By applying the above interpretation in the previous paragraph of the figures illustrated in Table 3, refinement costs amount to ZAR1 000. This figure is derived from adding the processing costs to the additional wear and tear to refine minerals. As a result, refinement costs represent 31.25% of the sales price (sales value); thus the value addition costs in refining the mineral would not justify the royalty amount payable.

The above analysis is without doubt not extensive and was only for illustrative purposes. A more in-depth review using actual and mine-specific information is required to sketch a more accurate assessment of the circumstances of different mining operations.

Oshokoya (2012:98-132) performed an in-depth evaluation of real-time data of a platinum mining company to ascertain whether further mineral processing expenditures and the amount of value added to minerals were sufficient to inspire miners to become refiners. It was concluded that the MPRRA's reduced rate provision for refined minerals is not substantial enough to encourage refinement of minerals.

The following subsection reviews the remaining provisions of the MPRRA as well as administrative procedures as set out by the MPRRAA.

#### **2.2.4 Other provisions of the MPRRA and administration in terms of the MPRRAA**

Apart from the fundamental principles on how the royalty charge is calculated, the MPRRA also contains certain provisions relating to royalty regime. In an attempt to strike balance between levying of a royalty and applying the royalty in a way that does not trigger detrimental socio-economic consequences, a number of relief provisions has been included in the MPRRA to provide relief from the burden of royalties (Van der Zwan, 2010b:25-26). The following is a summary of some of the most important provisions as set out in the various sections of the MPRRA.

Section 7 of the MPRRA provides for small business exemption whereby an extractor is exempted from the royalty payment if the gross sales value does not exceed ZAR 10 million during the assessment period and the royalty payment is less than one hundred

thousand rand. To qualify for this relief the extractor has to be a South African resident and must be duly registered as an extractor. In order to prevent large companies from splitting into smaller companies to take advantage of the relief provision, section 7(2) details certain stipulations as to when the royalty amount becomes payable.

Extractors of mineral resources are further exempt from paying the royalty on transfers for sampling purposes if the aggregate gross sales value in respect of those minerals does not exceed ZAR 100 000 (section 8).

Section 9 applies in the event of disposal of a mining operation as a going concern where mined mineral resources form part of the inventory sold onto the purchaser of the going concern. Mineral resources transferred this way are deemed not to be transfers and will not result in a royalty charge for the seller. This rollover relief requires the purchaser of the going concern to pay the royalty.

Anti-avoidance rules are dealt with in section 10 to 12 of the MPRRA. The Commissioner has the authority to adjust the amount utilised in the calculation of EBIT or gross sales to reflect arm's-length values.

In terms of section 13 the Minister of Finance may conclude a binding agreement with an extractor in respect of an extractor's mineral resource right or in anticipation of the extractor acquiring a mineral resource right. Special tax arrangements for unusual investments can be negotiated with authorities utilising this provision.

The MPRRAA deals with administration matters in connection with the imposition of royalty charges on the transfer of mineral resources. General administration topics dealt with include compliance, reporting, payment and record keeping.

In terms of the MPRRAA, the royalty period is in line with an extractor's year of assessment for Income Tax purposes. SARS is responsible for administering and collecting mineral royalties. Like provisional tax under the Income Tax Act, mineral royalties are also paid on a bi-annual basis based on estimation.

Certain aspects of taxation need to be re-examined with the application of the MPRRA. Some of these considerations are detailed in subsection 2.2.5.

### **2.2.5 Additional considerations**

Mineral royalties do not operate independently and interact with other taxes; it is therefore eminent to consider instances where mineral royalties would impact various other areas of the tax legislation. The following are vital tax considerations for mining operations to take into account when dealing with mineral royalties:

- The mineral royalty is deductible in terms of s 11(a) of the Income Tax Act due to the fact that it is an expense actually incurred in the production of income by a mineral extractor.
- Royalties or other considerations payable to communities on whose land the extractor mines will not be deductible from the royalty payable in terms of the MPRRA (it is deductible in terms of s 11(hB) for income tax purposes). An extractor is however allowed to deduct any lease, royalty or similar payment to the state in respect of an old-order right or OP26 right from the royalty amount payable in terms of the MPRRA. Consequently, a double royalty may be payable on mineral resources in the case of transferral.
- In respect of VAT, a royalty payment for the right to access mineral resources represents a service. The service however is provided by the state which is not a VAT vendor. Therefore no VAT will be levied on royalty payments (Van der Zwan, 2010a).

### **2.3 CONCLUSION**

From the background information on mineral royalties it is clear that there was a considerable transformation in the way of dealing with mineral royalties from both government and a mining operation's points of view.

The mineral royalty has now become more formalised than before through the introduction of legislative changes. As a result an increased amount of royalty payments based on a



set percentage will flow to government whilst mining operations will consider various options to continue being financially viable and produce favourable investment returns for their investors. This chapter provided a summary of the fundamental principles of calculating the royalty amount payable and other provisions of the MPRRA, including administration considerations as set out in the MPRRAA. Two formulas are available for calculating the royalty amount payable depending on the category of the mineral resource.

Furthermore it was established that the reduced rate set by the MPRRA for refined mineral resources will more likely than not be inadequate to motivate the additional expenditure in terms of refinement.

Chapter three will focus on the effect the new royalty legislation has had on the South African fiscal position as well as on the mining industry.

## CHAPTER 3

### IMPACT OF THE ROYALTY REGIME IN SOUTH AFRICA

#### 3 INTRODUCTION

The mining industry contributes significantly to a number of countries' economies, leading to the creation of mostly viable business and fiscal opportunities. Time and again this industry has drawn investors, both locally and internationally, to explore, develop and exploit natural resources in pursuit of financial enrichment. Governments of richly endowed countries who regulate the terms and conditions according to which mineral resources are extracted quite often have different goals and objectives (Otto et al., 2006:183-186).

With the background information provided on the evolution of the South African mining royalty and given the method of calculating the mining royalty in chapter two, this chapter aims to provide some insight into the way in which the new royalty regime of South Africa impacted various areas affected by the mining royalty. The two major groups of stakeholders involved include firstly, the South African economy and secondly, the mining industry consisting of mining operations, investors and market indicators.

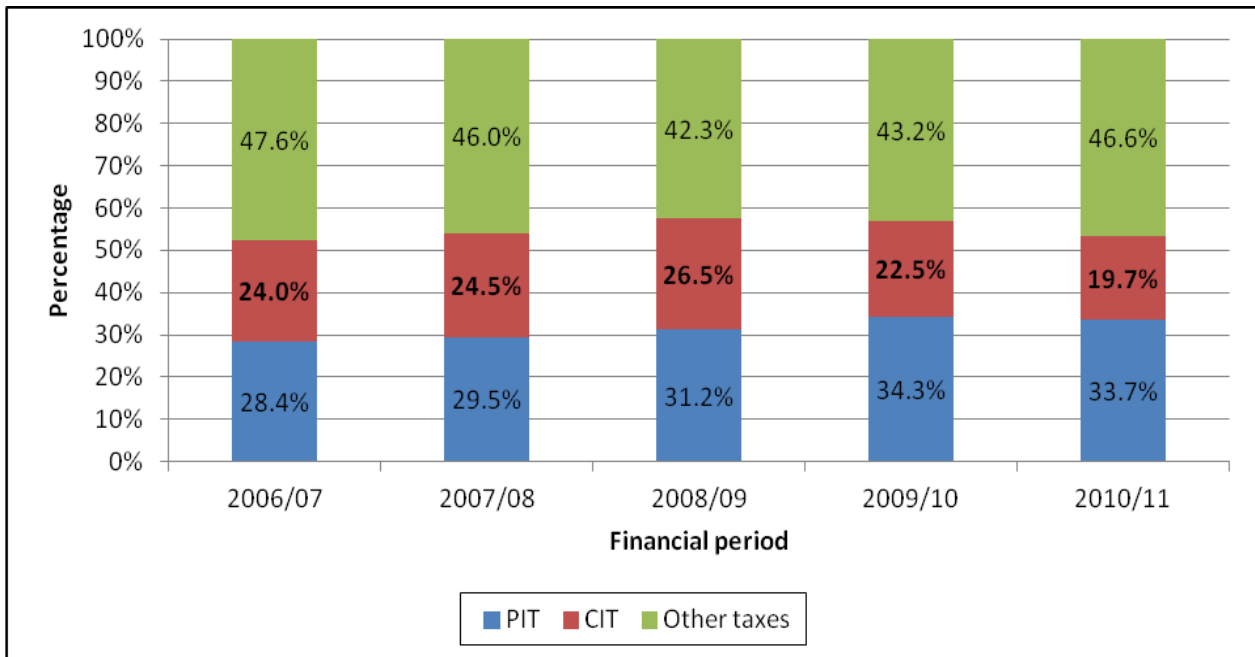
These stakeholder groups will be considered in the various subsections during the course of this chapter.

#### 3.1 IMPACT OF MINERAL ROYALTIES ON THE FISCAL

Governments collect funds in the form of different revenues to meet a country's needs; for example, providing social infrastructure, schools, road, public services and conservation, to name but a few (National Treasury, 2012:39). In South Africa, SARS is responsible for the collection of the majority of the total tax revenues from a number of parties that form part of the tax register. The tax register comprises individuals, companies, and other taxable entities. Figure 1 illustrates the tax register composition of personal income taxes

(PIT), company income taxes (CIT) and other sources of tax revenues collected for the indicated financial periods.

**Figure 1: Composition of main sources of tax revenues**



Source: Adapted from National Treasury and SARS (2011:9)

Fluctuations in the composition of revenue collections have occurred over the past years. The decreased CIT of 4% and increased PIT of 5% in the last 5 years is a direct result of the effects of the global financial crisis. Other taxes as indicated in Figure 1 in general mainly include indirect taxes such as VAT, fuel levies, and excise and custom duties. Even though CIT and PIT are the direct taxes making the largest contribution to the tax register, indirect taxes such as VAT and excise and custom duty taxes contribute to tax revenue accrued through the supply chain of goods and services, including imports and exports, by companies and individuals.

Figure 1 shows that company taxes account for a generous portion of the total tax revenue. The current marginal tax rate applicable to South African companies is 28% (prior to 1 April 2008 it was 29%) although some sectors of the economy have different effective tax rates due to specific tax dispensations and deductions. In the mining sector for example, a gold mining formula is applied to gold mines, which is a specific formula determined a number of years ago to collect excess profits as additional tax revenue.

Mining taxes form a substantial part of total company taxes as illustrated by Table 4. The average contribution to CIT by the sector was on average 10.2% for the period January 2007 to December 2010.

**Table 4: Assessed mining taxes in relation to total company taxes, 2007 - 2010**

In ZAR millions	Financial period			
	2007	2008	2009	2010
Mining and quarrying assessed taxes	14 146	25 436	12 803	3 546
Total assessed company taxes	138 161	158 917	125 749	82 107
Mining taxes as a % of CIT	10.2%	16%	10.2%	4.3%

Source: National Treasury and SARS (2011:89)

Table 4 shows how the mining sector contributed 10.2% and 16% during the 2007 and 2008 financial periods respectively, whilst the effect of the economic recession became clear in 2010 when the sector only contributed 4.3% to total company tax revenues. The margin of contribution by the sector depends on global economic morale especially due to the large export rate of South African minerals to countries around the world. It can therefore be expected that the industry will be a large contributor in times of exceptional growth and less so during recessions.

The crucial contribution that the mining industry makes to the country has led to the review of South Africa's mining fiscal policies to adapt to changing local and international conditions (Oshokoya, 2012:88). As a result the MPRRA was developed to give effect to section 3(2) of the MPRDA.

With the implementation of the MPRRA, additional funding, namely mineral royalties became payable to SARS because of the state's custodianship over the mineral resources in South Africa when extraction thereof takes place. The original pool of funds grew with the addition of resource royalties. According to Cawood (2011:444), the size of the royalty income in relation to other government funds is directly related to factors such as mineral abundance, size of the industry and prices of mineral products.

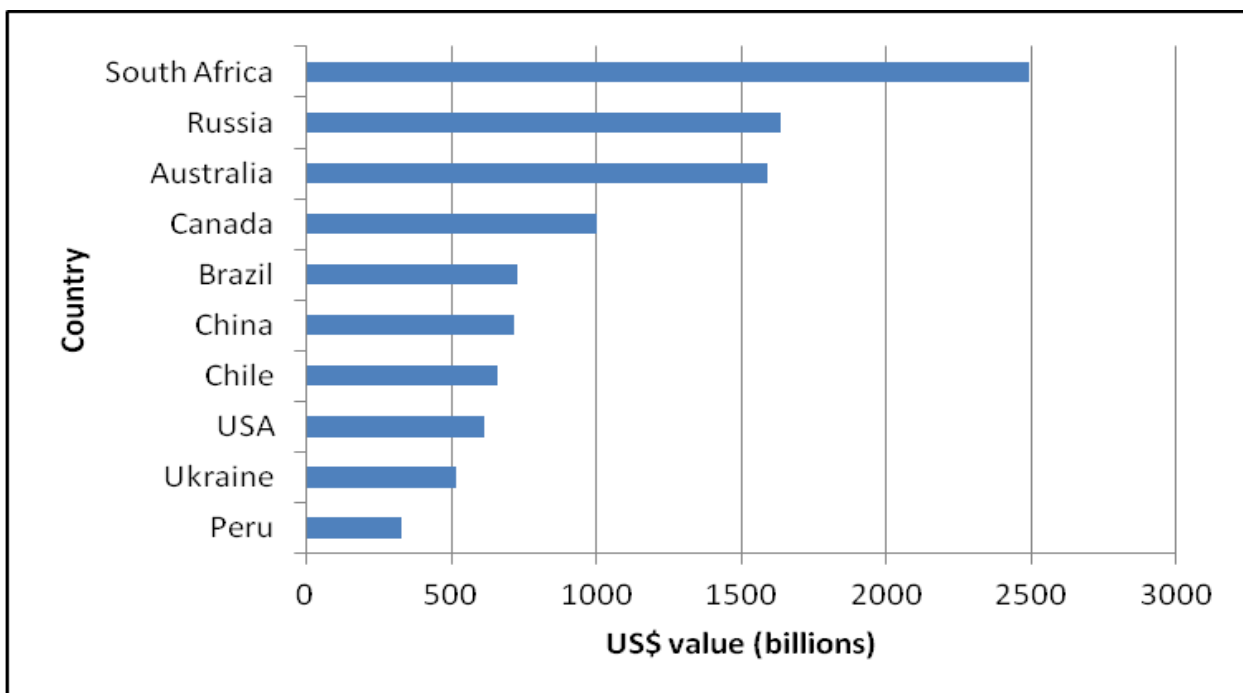
The following subsections examine South Africa’s mineral abundance and the size of the mining industry in relation to the world to establish whether the royalty income calculated in accordance with the MPRRA will add sufficient revenue to the country’s tax register to create even more opportunities to develop social and economic services or benefits.

### 3.1.1 Mineral abundance in South Africa

In a reply to a parliamentary question, the Mineral Resources Minister of South Africa held that South Africa’s mineral wealth was estimated during 2012 to be worth in the region of ZAR30 trillion based on the country’s 15 major minerals (Sapa, 2012). Commodities such as platinum, coal, palladium, gold, titanium, nickel, zinc, uranium and manganese are some of the reserves found in the country, making South Africa one of the world’s largest mining sectors (Sapa, 2012).

The richest country in respect of metal and ore reserves in the world was defined during 2010 by Citibank, a US financial institution (in Chamber of Mines, 2011:27) as the country with the largest in situ value of mineral resources (excluding energy minerals). Results of the top 10 countries in the world with the highest metal and ore reserves as indicated by the report have been detailed in Figure 2 below.

**Figure 2: Top 10 richest endowed countries**



Source: Chamber of Mines (2011:27)

According to the Citibank report and Figure 2, South Africa is therefore considered to be the richest country in the world in terms of metal and ore reserves with an estimated value of US\$2.5 trillion, illustrating the potential of the mining industry for the country. The countries coming closest in mineral abundance are Russia and Australia which do not have nearly as much mineral wealth as South Africa does. Nevertheless, mineral wealth beneath the earth does not signify wealth unless it can be safely and environmentally responsibly removed in a profitable manner. Apart from being a major player in terms of global mineral reserves, the country is also a vital producer of minerals. Some of the foremost minerals produced by South Africa include gold, diamonds, chrome and platinum.

South Africa's reserves of platinum group metals (PGMs), manganese, chromium, alumino-silicates, gold and vanadium are amongst the largest in the world (Chamber of Mines, 2011:27).

Having established that South Africa holds the highest quantities of metal and ore reserves compared to the rest of the world, one needs to put this in perspective of the total economy of the country by evaluating the mining industry's input in the South African economy.

### **3.1.2 Size of the mining industry in relation to the economy**

The history and development of the South African economy has for the most part been formed by the mining industry. For a long period of time, South Africa's mineral industry, based mainly on gold, diamonds, coal and recently PGM production, has made an important contribution to the national economy (Statistics South Africa, 2012:1).

Although the relative contribution of mining to economy has declined over the past few years due to the development of secondary and tertiary industries, the mining sector continues to contribute and support growth and expansion in the country. During 2011, this sector accounted for 8.8% of GDP directly on a nominal basis, whilst the overall contribution to GDP on an indirect basis was closer to 18%. With a real mining GDP of

ZAR 99.4 billion in 2011, mining contribution was still smaller than peak mining GDP of ZAR 105.6 billion in 2007 (Chamber of Mines, 2012:2).

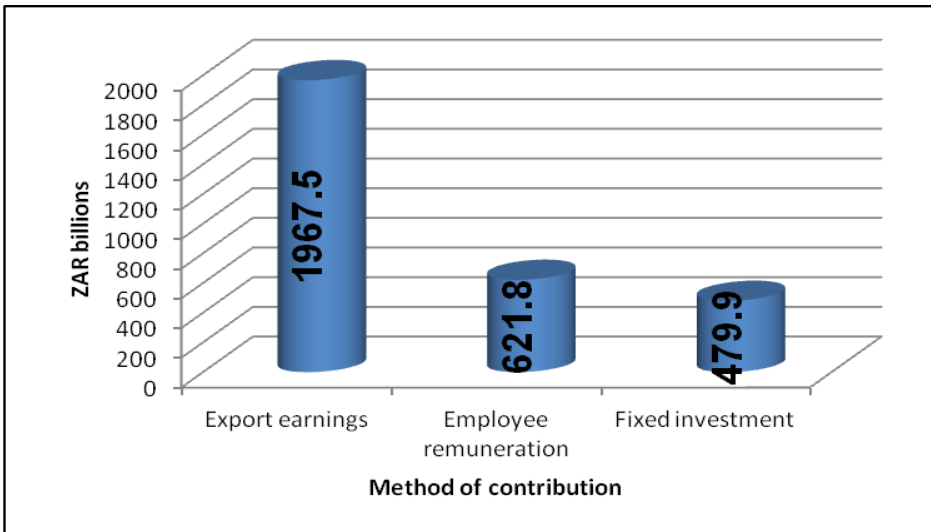
Apart from contributing to the GDP, mining also contributes in various other ways to the economy. Mining's contribution to private sector investment accounted for 20% and total investment in the economy amounted to 12.3% in 2011. The mineral resources sector remains a key component of the Johannesburg Stock Exchange (JSE) with mining representing 29% (or ZAR 1.4 trillion) of the All-Share index at the end of 2011 (Chamber of Mines, 2012:2).

The mining industry's importance to South Africa as a whole can also be measured in real money terms with respect to export revenue generation and employment. The Chamber of Mines reported that South African mineral sales amounted to ZAR 370.6 billion for the period January to December 2011, of which 76% were export sales and the remainder local sales. The importance of the sector's ability to generate income can further be illustrated by mineral exports accounting for 38% of the country's total merchandise exports.

The nature of the sector still remains labour intensive, providing approximately one million employees with job opportunities. ZAR 71 billion was paid during 2009 to workers in the form of salaries and wages. In this way the sector contributes substantially to the economy and to the purchasing power of workers.

The sector's contribution over the past decade expressed in 2011 in real rand terms is illustrated in Figure 3 below.

**Figure 3: Mining contribution to RSA over the past decade in 2011 rand terms**



Source: Chamber of Mines (2012:3)

Figure 3 demonstrates that the sector’s contribution over the past decade was significant. Taking into account the global economic crisis over the past few years, one can only imagine what contribution the mining sector would have made had this not been the case.

The next subsection will assess the impact of the new royalty reform on the country’s economy.

### **3.1.3 Effect of new royalty reform on the economy**

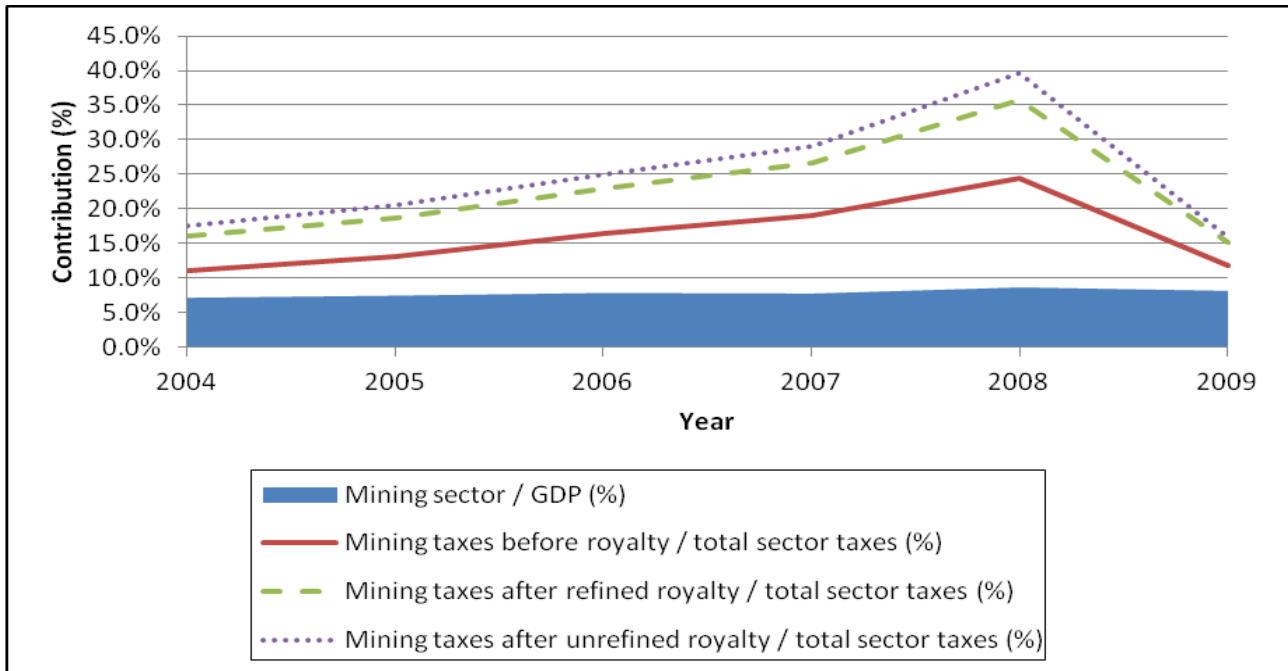
Over the years it was found that mining and mineral processing creates wealth and contribute positively to a country’s economy in respect of growth and development. One can therefore agree that the imposition of mineral royalties, leading to an additional source of revenue for the state with the implementation of the new royalty reform during 2010, was expected to enhance the South African economy and the well-being of its people even further.

A study conducted by Cawood (2011) noted the impact that mining royalties would have had on the mining sector’s contribution to the economy had the regulations been in place since 2004. Figure 4 on page 27 demonstrates the mining sector’s contribution to GDP as



well as the contribution to mining taxes before royalty, after unrefined royalty and refined royalty payments.

**Figure 4: Impact of royalty regime on mining sector tax contribution**



Source: Stats SA in Cawood (2011:445)

In analysing the mining industry's contribution to the total CIT, Cawood (2011) established that mining taxes account for 16.8% of total company taxes whilst the sector's contribution to GDP averaged 7.8% for the period 2004 to 2009. The broken and dotted lines in Figure 4 represent total mining taxes as a percentage of company taxes that would have been payable provided the current royalty reform had been in place during the preceding five years in 2009. The mining sector's contribution to total company taxes was expected to increase with approximately 8% after implementation of the MPRRA.

The above analysis shows that mining taxes as a percentage of total sector taxes can commonly be expected to rise between 6.6% for refined minerals and 8.6% in the case of unrefined minerals. This is a striking increase which will surely be welcomed by government to aid in the total tax register.

Studying the information of the MPRRA's potential impact, the importance of the sector's increased responsibility of paying mining royalties to the state became clearer, recognising

that the current role mining has played thus far in the economy of South Africa was about to increase.

Budget review figures released on 22 February 2012 by National Treasury indicated that government was expecting mineral royalty revenue payments to increase with approximately 142% over the next five years from the 2010/11 financial period. This was based on the fact that the new royalty regime would take time to be fully implemented and function effectively across mining operations. Table 5 displays the estimated figures published as expected to flow as a result of mineral royalty payments.

**Table 5: Expected mineral royalty revenue, 2010/11 – 2014/15**

In ZAR millions	Financial period				
	2010/11	2011/12	2012/13	2013/14	2014/15
Mineral royalty revenue	3 555	5 500	6 510	7 490	8 620

Source: National Treasury (2012:39)

On 27 February 2013, the National Treasury released the latest results for the financial period 2011/12. It was reported that ZAR 5 612 million was in actual fact derived from mineral royalties compared to the budgeted figure of ZAR 5 500 million (National Treasury, 2013:47). The latest estimates forecasted were also published and were reported as per Table 6 below.

**Table 6: Expected mineral royalty revenue, 2011/12 – 2015/16**

In ZAR millions	Financial period				
	2011/12	2012/13	2013/14	2014/15	2015/16
Mineral royalty revenue	5 612	5 000	5 900	6 500	7 200

Source: National Treasury (2013:61)

When comparing Table 5 to Table 6 it is noted that the anticipated revenue collections forecast for the financial periods 2012/13 onwards in Table 5 vary noticeably from the forecasted statistics in Table 6. In fact, mineral royalty revenue is anticipated to grow with only 102% should the change be determined from the 2010/11 financial period. This results in a 40% decrease of mineral royalties' collections when compared to the figures released in 2012.

The mining sector's revenue contributions are volatile as they are driven by global commodity prices and the rand exchange rate. Mining revenue has recovered following the 2009 recession, and is expected to contract in 2012/13 due to lower commodity prices and labour unrest (National Treasury, 2013:49).

Despite the fact of the anticipated decrease in mineral royalty collections, evaluating the latest projections as per Table 6 it can still be predicted that mineral royalty revenue might form an integral part of the mining industry's contribution to the economy for years to come.

Figure 7 illustrates the mining sector's corporate income tax revenue including mineral royalties compared to total **provisional** corporate income tax for the specific financial periods indicated.

**Table 7: Mining sector: corporate income tax and mineral royalties**

ZAR million	2010/11	2011/12	2012/13 Estimate
Total <b>provisional</b> corporate income tax of which:	136 872	158 782	162 000
➤ Mining and quarrying	14 996	17 029	12 200
➤ Percentage of total corporate income tax	11.0%	10.7%	7.5%
Mineral royalties	3 555	5 612	5 000
Total mining and quarrying	18 551	22 641	17 200
Total mining and quarrying as a percentage of total corporate income tax	13.6%	14.3%	10.6%
Percentage increase as a result of mineral royalties	2.6%	3.6%	3.1%

Source: National Treasury (2013:49)

The increased contribution by the mining sector as a result of the inclusion of mineral royalties to the total provisional corporate income tax can be clearly seen from Table 7. Taking into account mineral royalties, the mining sector's contribution has on average for the indicated financial periods increased by 3.1% per annum.

The increased contribution of the mining industry as evaluated on actual results is far less than the expected rise as evaluated by Cawood. The anticipated impact of the MPRRA was that it would increase mining's contribution to corporate taxes at about 8% (Cawood, 2011:445).

Nonetheless, with the MPRRA only being effective for a short period of time and with government only having received mineral royalty collections for two years, it is still early days and the future might well see the mineral royalty increase mining's contribution to 8% or even more of corporate taxes.

This concludes the sub-section on the evaluation of the new royalty regime on the economy. With South Africa being the number one country in terms of mineral abundance and bearing in mind the historical role that mining has played in forming the country, one can recognise the definite benefit to the fiscal of implementing the MPRRA.

Whilst the additional form of revenue will be welcomed by government, the mining industry's reaction might not be so positive because of an additional form of duties payable. The next section focuses on the royalty's impact on the mining industry.

## **3.2 INFLUENCE OF NEW ROYALTY ON THE MINING INDUSTRY**

The implementation of the new royalty reform impacted a number of stakeholders as already mentioned during the research study. This section focuses on the mining industry, in particular on profitability, including production and sales revenue, probability of continued and new investment in the sector and different types of commodities that have been affected by the royalty regime.

### **3.2.1 Impact on profitability**

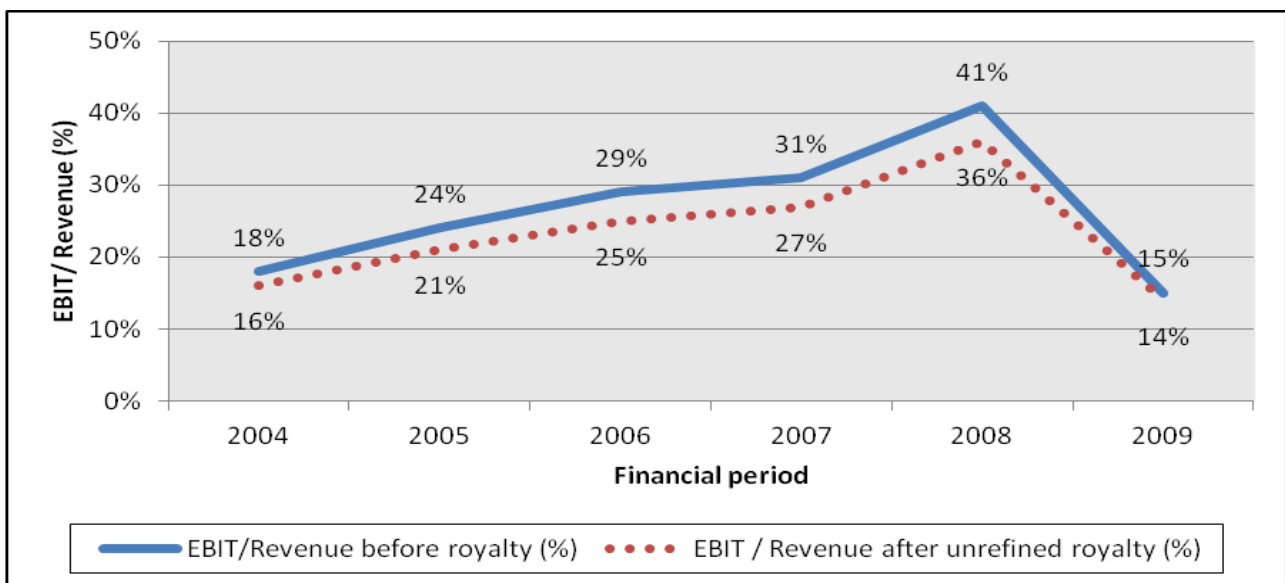
Ore bodies are extracted through mining and processed to extract valuable element(s). An ore body's grade or concentration directly affects the profitability associated with mining the ore. The cost of extraction must therefore be weighed against the mineral value contained in the ore to determine whether it is worth mining. The implementation of a new regulatory cost burden, in the form of mineral royalties, impacts mining operations' profitability leaving less distributable proceeds being available to investors or shareholders, directors and employees. As with any other businesses, mining companies'

foremost objective will be to remain profitable and steer clear of losses as profit is one of the key attributes in pursuing any business activity.

In the light that mineral royalties have been paid in the past by mining companies to the respective mineral right owners, payment of the mineral royalty itself does not pose an issue for mining companies. However, of concern to mining companies is how much the mineral royalty constitutes referring to the royalty base and rate. Whilst the royalty rate has been capped at 5% and 7% for refined and unrefined mineral resources respectively, gross sales represent the royalty base for calculating the royalty charge (refer to section 4.2.3). One could therefore dispute whether mineral production might be influenced because gross sales are directly linked to the royalty amount payable. Mining companies might also consider benefiting from the decreased royalty rate by refining mineral resources.

The possible impact of the new royalty regime on profitability was studied by Cawood (2011:445) through comparing the actual profitability for all South African mineral producers against what the maximum impact would have been had the MPRRA been in force during the past few years. The results of the potential impact have been illustrated in Figure 5 below.

**Figure 5: Potential impact of MPRRA on mining industry profitability**



Source: Stats SA in Cawood (2011:445)

The solid line in Figure 5 represents actual profitability whereas the broken line represents the likely profitability of mining companies if the royalty charge had been calculated using the 7% capped rate for unrefined mineral resources. The graph illustrates how actual profitability ratios ranged significantly over the six year period which is a characteristic of the mineral industry as mineral prices fluctuate due to their cyclical nature. The gap between the lines exemplifies the impact of the royalty which varies according to the level of profitability. The royalty formula was intended to have exactly this effect.

During peak times when mineral resources are in demand and sales and profitability are high, royalty charges will be higher compared to royalties' payable in times when sales and profitability show a lower trend.

An empirical study performed by Henrico (2012) analysed how the enactment of the MPRRA would affect mining companies' earnings before interest and taxes (EBIT). This is mainly due to the significant part EBIT plays in calculating a mining operation's liability for mineral royalties.

Detailed in Table 8 below are the responses received from 20 participants of mining companies to questions posed as to what the percentage of mineral royalties of EBIT amounted to before and after the enactment of the MPRRA.

**Table 8: Number of mining companies paying mineral royalties before and after the enactment of the MPRRA**

<b>Royalties as % of accounting EBIT</b>	<b>Before MPRRA</b>	<b>After MPRRA</b>
No royalties	12	3
Up to 5%	7	13
Greater than 5%	0	3
Greater than 20%	1	1

Source: Henrico (2012:36)

It came as no surprise that the number of companies that were not liable for paying mineral royalties before the enactment of the MPRRA would decrease (Henrico, 2012:37). The results indicated that an astounding 75% of those companies not paying mineral royalties before, would now become obliged to pay mineral royalties in accordance with the MPRRA.

Table 8 also points out that 65% of the 20 respondents' royalties would account for approximately 5% of the EBIT figure after the implementation of the MPRRA (Henrico, 2012:37). That is an increase of 46% from before the enactment of the MPRRA.

The above responses from mining companies indicate that mineral royalties will form a relevant portion of earnings before interest and taxes, which can therefore have a considerable impact on their profitability.

In analysing some of the mining companies' financial results Henrico (2012:18) established that Kumba Iron Ore Limited's (Kumba) effective tax rate as a result of additional royalty charges increased to 36.4% and 32.72% for 2011 and 2010 respectively when compared to accounting EBIT of 30.66% in 2009. It was calculated that royalties represented in the region of 5.5% of Kumba's accounting EBIT. On the other hand, Exxaro Resources Limited's (Exxaro) royalties as a percentage of EBIT was only about 1.46% and 2.01% in 2011 and 2010 respectively (Henrico, 2012:18).

An alternative way of determining whether the mineral royalty payable impacted the industry's profitability is to analyse revenue, production and operating profits, otherwise known as key performance indicators. This is because revenue is closely linked to production activities which lead to operating profits, also known as EBIT, which play a major part in the calculation of royalties payable as required by the MPRRA.

A periodical publication by PricewaterhouseCoopers on the South African mining industry noted a market capitalisation (ZAR 739 billion) of the top ten mining companies in the country as at 30 September 2012. Global mining companies Anglo American and BHP Billiton were excluded from the publication's selection criteria due to the fact that the global exposure and size of these giants do not necessarily reflect trends in the South African mining environment. The largest company by market capitalisation was that of Kumba Iron Ore with 21.9% followed by Anglo Platinum with a market share of 15.6% (Boegman and Rossouw, 2012:4).

An evaluation as to how key performance indicators of these two mining companies have changed over the years since the institution of the MPRRA might provide insight as to whether its impact was in actual fact such a big barrier to profitability.

An extract of Kumba Iron Ore Limited (Kumba) results have been detailed in Table 9.

**Table 9: Kumba's performance indicators**

ZAR million	2012	2011	2010	2009	2008
Revenue	45 446	48 553	38 704	23 408	21 360
Operating expenses:	(22 293)	(16 587)	(13 573)	(10 528)	(7 847)
• Operating expenses excluding mineral royalties	(21 166)	(14 825)	(12 163)	(10 528)	(7 847)
• Mineral royalties	(1 127)	(1 762)	(1 410)	-	-
Operating profit	23 153	31 966	25 131	12 880	13 513
Operating margin	51%	66%	65%	55%	63%
Production (Mt)	43.1	41.38	43.3	41.9	36.7

Source: Kumba Iron Ore Limited (2013:4), Kumba Iron Ore Limited (2012:22-25)

From Table 9 it can be deduced that the impact that mineral royalties have had on Kumba's total operating expense resulted in about 5%. However, other performance indicators such as revenue and operating profits increased from 2009 to 2010 continuing into 2011 whilst production tonnages remained more or less stable. This increase in profitability during 2010 and 2011 were a result of stronger iron ore prices. The effect of royalties does not seem to have a major impact.

When reviewing the results of Anglo Platinum in Table 10, the amount of royalties reported for 2010 equalled more than double than those of 2009 before the MPRRA became effective.

**Table 10: Key indicators of Anglo Platinum**

ZAR million	2012	2011	2010	2009
Net sales revenue	42 838	51 117	46 025	36 687
Total operating expenses:	(49 172)	(43 152)	(38 772)	(35 766)
• Royalties	(286)	(442)	(130)	(56)
Operating profit / (loss)	(6 334)	7 965	7 253	921
Operating margin	(14.8%)	15.5%	15.8%	2.5%
Refined platinum production (000 oz)	2 378.6	2 530.1	2 569.9	2 451.6

Source: Anglo Platinum Limited (2013:216-250), Anglo Platinum Limited (2012:240-290), Anglo Platinum Limited (2011:202-253)



Prior to the MPRRA which became effective in 2010, mining companies negotiated royalties' payable directly with mineral right owners. In Table 10 a clear distinction of the effect of the MPRRA can be seen as mineral royalties in 2009 differ vastly from those in 2010. In 2010 the royalty amount increased representing only 0.33% of total operating expenses. In 2011 royalties as a percentage of total operating expenses increased to 1%. Royalties decreased to 0.5% of total operating expenses in 2012. These percentages seem almost trivial when reviewing the key financial statistics.

From a high-level perspective, the results from the two companies Kumba and Anglo Platinum have not changed drastically because of the implementation of the MPRRA as fluctuations in figures were mostly attributable to market conditions and industrial action. Financial results still reflect profits being made (except for Anglo Platinum in 2012) and thus the effect of the MPRRA were not that negative.

Of course other factors such as political risks, corruption, infrastructure, energy costs, and social unrests would also require consideration in establishing the MPRRA's impact on mining operations ability to pay royalties. Furthermore, one also needs to consider the effect that the MPRRA would have on investment opportunities in the mining industry.

### **3.2.2 Attracting the necessary investment**

Mining projects generally commence with pre-feasibility studies where the proposed project is reviewed by analysing location, human resource requirements, design and infrastructure requirements, project economics and a financial evaluation. If investors find the project feasible, the process would move onto feasibility level and finally to the planning, execution and commissioning stages respectively. Another consideration to be carefully taken into account is the provision for rehabilitation costs in order to restore the land upon which the mining project had been executed at the end of the mining operation. Mining is therefore a costly concern and mining companies may sometimes only be compensated for their capital investment several years after the first breaking of ground had occurred.

Like certain other industries the mining sector is cyclical, meaning that it is sensitive to business cycles and price fluctuations in the economy. Performance of the sector is tied to the overall economic climate and is affected by almost all regions in the world. Similarly, investment in exploration and mine development follows these cycles and investors consider a number of factors before deciding on the most advantageous investment project in mining. The key factors influencing investment decisions include profitability of potential operations, geological potential of a possible mining project, political stability, government regulations, the level of risk associated with a specific project, and last but not least, fiscal and social-political management.

The investment climate in minerals in South Africa is less favourable than in Chile, Australia and many other countries for a range of reasons. Whilst the introduction of royalty regimes across the world has not greatly altered the investment climate, the proposal for a mineral royalty in South Africa initially raised various concerns on the investment climate. These concerns are:

- firstly, the historical common law ownership of mineral rights in South Africa. As mentioned earlier in this research study, mining companies were allowed to purchase mineral rights directly from mineral right owners to develop mining operations. These mineral rights were often acquired at an enormous expense, and with the implementation of the MPRRA, mines will effectively pay a second time (the royalty payable to the state) for the same rights. Where a mining company has entered into long-term royalty agreements with private owners of mineral rights (an example would be the Royal Bafokeng), the new royalty as determined by the MPRRA including agreed royalty payments to private owners would still need to be paid;
- uncertainty regarding many new policies and laws that have been introduced since 1994, such as the MPRDA. The delay in developing and implementing the new royalty regime added to the complexity of predicting long-term cash flows; and
- the South African investment climate is adversely affected by a host of considerations not found in other countries. These include crime and violence, common of diseases and greater costs associated with government-mandated social investment projects than in other countries (Otto *et al.*, 2006:196-199).

These occurrences will be closely evaluated by investing parties before deciding upon the country of investment. Investors, both foreign and local, of mining companies do not mind paying mineral royalties on the extraction of minerals in a specific country as long as their investment remains financially viable over the long term.

Consequently, investors will also be responsive to recurrent changes to royalty bases and rates. It is thus of utmost importance that the base and rate of South Africa's mineral royalties be equitably balanced to ensure continued investment in the mining industry and maintaining sustainable growth of the country's economy. In the event that mineral royalty charges are too high, investors will seek to invest somewhere else, resulting in a possible loss of capital flow to the South African economy.

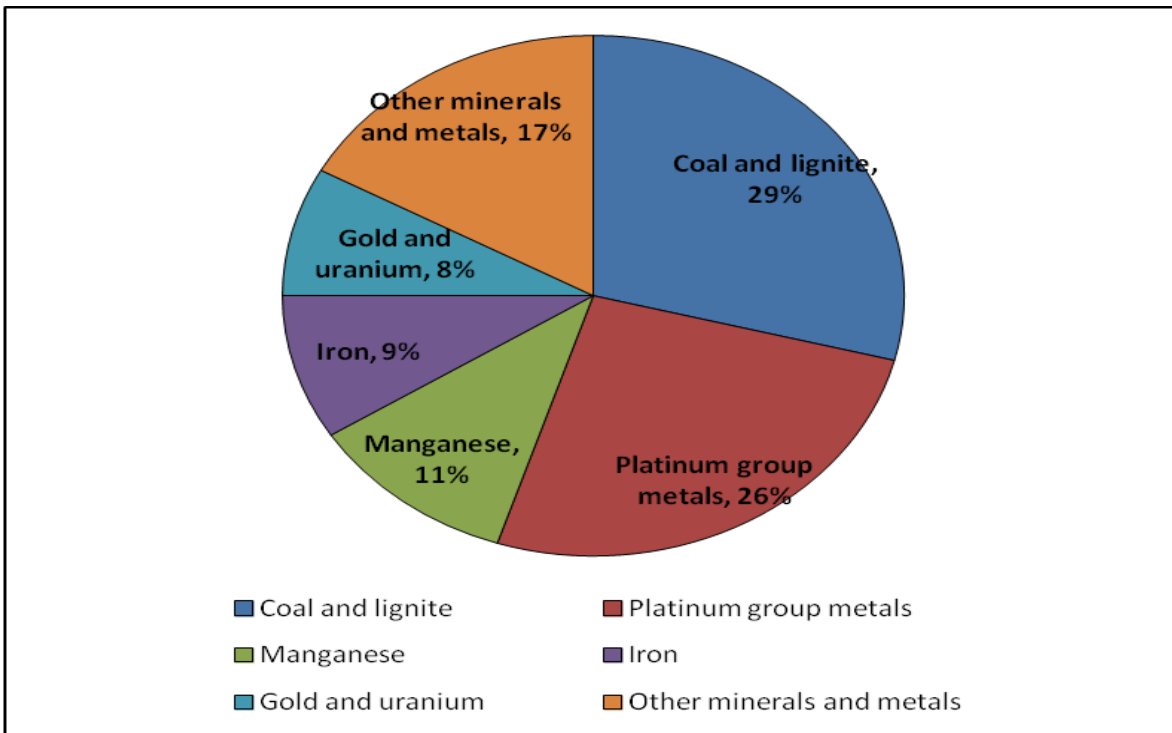
An evaluation on how competitive South Africa's mineral royalty is in comparison to international royalties could add great value to assist mining concerns in their decision making processes for investment prospects. This exercise will also aid government in determining whether a review of the royalty regime would be sensible to attract the required investment.

### **3.2.3 Impact on commodities**

Apart from evaluating the impact of royalties on profitability and future investment opportunities, another important aspect to consider is how the different types of commodities in South Africa will contribute to paying royalties.

In 2009a study was carried out by StatsSA whereby the financial information of the mining industry for 2009 was adjusted to reflect the royalty regime. The purpose of this exercise was to establish which mineral commodity would contribute the most to the pool of mineral royalties if the MPRRA had been effective during 2009. Results of the study have been detailed in Figure 6.

**Figure 6: Royalty contribution per commodity**



Source: StatsSA (2009) in Oshokoya (2012:96)

Despite the fact that platinum group metals (PGMs) are South Africa’s most precious commodity because of its abundant availability, coal would have been the largest contributor to mineral royalty payments with 29%. Platinum group metals (26%) scored second place in the contribution list whilst manganese would have contributed 11% of all royalties. Gold reserves would have only added 8 % to the pool. Fluctuations in commodity prices and production outputs influence volatility and as such contribution ratios of the various commodities will most likely change year on year. Actual information regarding royalty contribution per commodity is not readily available, hence no further research has been done on this subject.

Royalty payments will essentially form part of a mining operation’s production cost. The impact of the royalty might therefore affect commodity prices and this also indirectly affects a country’s economy. Such a change might potentially influence the balance of supply and demand requirements in the industry.

As is explained by Otto *et al.* (2006:226), the introduction of a royalty may not alter the commodity market prices where market power is exercised to set the market price at the

optimal level using producer prices. In competitive markets the industrial marginal cost curve determines the market supply curve. The meeting point between the supply and demand curves determines the equilibrium production and price.

### **3.3 CONCLUSION**

Chapter 3 served to illustrate how the newly incorporated mineral royalty regime impacted the South African economy and mining industry. Firstly, the fiscal's composition of different taxes and revenues were examined to create a high-level overview of where revenue received in the form of royalties will fit in. After this outline, South Africa's mineral abundance in relation to the world and the mining industry's portion of the South African economy were put into context. The potential effect on the economy as well as the estimated royalty revenue were analysed against actual financial statistics to conclude that the addition of mineral royalty revenue to the tax register will in fact be greatly appreciated by government.

The second part of this chapter evaluated the influence that the MPRRA would have on the mining industry if it had been effective during prior periods. Revision of actual results noted that mining companies still remain feasible despite having to pay the increased royalties. Certain factors were highlighted that investors would consider before commencing with future projects in South African mining. Lastly it was shown that changes in commodity prices are not a direct result of the addition of royalties due to the market supply curve.

## CHAPTER 4

### CONCLUSION

#### 4 INTRODUCTION

This chapter rounds off the study, summarises findings and serves to confirm that the research objectives detailed in Chapter one were met. This chapter highlights the most important aspects of the new royalty regime and draws a conclusion about the actual impact of the MPRRA on the economy and the mining industry. Finally, recommendations for future research studies are made on the topic.

##### 4.1 SUMMARY OF FINDINGS AND RESEARCH OBJECTIVES ANSWERED

The study was guided by the following research objectives as formulated in chapter one:

- to review the most recent literature and contextualise the aspects of the new royalty regime in a logical format;
- to establish the impact that the mineral royalty has had on South Africa's economy; and
- to determine how the implementation of the MPRRA influenced the mining industry.

Findings on each of these research objectives have been set out in the respective subsections below in an attempt to reach the research objectives.

##### 4.1.1 Contextualising the aspects of the new royalty regime

The purpose of this research study was to investigate the impact of the MPRRA on South Africa's economy and the mining industry. In order to draw a conclusion on the impact that the MPRRA has had, a review of the mineral royalties' development, evolution and application in South Africa was conducted. After that the potential impact of the MPRRA

and scrutiny of various actual statistical data relating to aspects impacted by the MPRRA were performed.

The literature review commenced with a brief review of mining taxation applicable to the mining industry. Although most of the tax legislation requirements apply to the rest of the country's various industries, the MPRRA which addresses mining royalties is exclusive to the mining industry.

The study then continued with a brief explanation of how mineral royalties were treated before implementation of the MPRRA. The researcher learned from the history of mineral royalties that the South African system evolved into a more standardised system compared to the one applied before implementation of the MPRRA. One of the main fundamental principles defined by the MPRRA is that a mineral royalty only becomes payable upon transferring of mineral resources which comprises disposing of the extracted mineral resources. The MPRRA also distinguishes between two types of mineral resources, namely refined and unrefined mineral resources. Different royalty rates apply to these mineral resources and an example of calculating the royalty payable was also given to demonstrate the difference between refined and unrefined mineral resources.

The study put the most important aspects of the new mineral royalty regime into context and therefore the first objective has been met.

#### **4.1.2 The impact that the mineral royalty has had on the South African economy**

A review of the MPRRA's impact on the South African economy was given by researching the contributions of the mining industry to the overall tax register. Then South Africa's mineral abundance in relation to the world was noted, showing it to be the richest in the world and illustrating that the industry has a significant contribution to make to the economy including particularly export earnings, employment and investment opportunities. It was confirmed that the mining sector plays a significant role in the South African economy. The potential impact predicted by research indicated an approximate 8% increase in the mining sector's contribution to total economy taxes. Actual mineral royalty

receipts as reported by government reflect positively and future mineral royalty revenue are expected to grow in upcoming years.

The addition of mining royalty revenue has added an additional ZAR 5 612 million to the total tax register to be utilised. Like any other form of revenue, the researcher is confident that the extra revenue will be positively acknowledged by the collecting authorities.

The second objective of the study has been met and it is concluded that the addition of mineral royalty collections to the overall tax register has made a noteworthy impact on the South African economy which is anticipated to grow in future years.

#### **4.1.3 How the MPRRA influenced the mining industry**

Finally, the impact on the mining industry itself was reviewed. Profitability, new investment prospects and the influence on commodities were studied to attain an understanding of the MPRRA's impact. The introduction of a mining royalty payable in terms of the MPRRA in addition to other royalties currently payable under agreements which were in place prior to the MPRRA would place an additional cost burden upon a mining operation. Since the amount of royalty payable is directly linked to gross sales, mineral production and commodity price play an important role in an organisation's profitability. The royalty formula was designed in a way that the royalty rate fluctuates concurrently with EBIT, resulting in a high royalty payable in booming times and a lower obligation of a mineral royalty in economical recession times. The likely influence of the MPRRA was predicted to decrease a mining operation's EBIT between 2% and 5%.

The key performance indicators of two very well-recognised mining houses were analysed. Reviewing these actual results reflected royalties to represent between 0.5% and 5% of operating expenses since the MPRRA became effective. Although it might seem to be quite a percentage, mining operations are still conducting business as usual. Whilst the impact of the MPRRA on mining operations' operating expenses might be inconsequential, future investment opportunities will be closely evaluated in relation to other countries. This is because of the unique circumstances of the South African economy such as historical



common law mineral right ownership, newly implemented policies since the inauguration of the new political party and community and social situations.

Lastly it was established that coal rather than platinum would have been the largest contributor in terms of mining royalties on evaluating financial statistics for a period prior to the implementation of the MPRRA.

The third objective has been dealt with during the last part of this study and the conclusion was that the MPRRA did not significantly influence the mining industry to abstain from performing their daily activities.

## **4.2 CONCLUSIONS**

The MPRRA was believed to have a significant impact on the South African economy as well as the mining industry. Mineral royalties are one of the most common forms of royalties across the world imposed in return for the extraction of mineral resources. The MPRRA brought a more prescribed system into place which seems to be reasonable from findings identified during this study.

The impact on the economy is more positive than negative based on government receiving more contributions to the total tax register from the royalty regime to enhance the country's needs. With the additional form of revenue available for distribution to various regions of the economy, the mineral royalty is a very effective instrument.

The effect of mining royalties has caused operating expenses to increase but the researcher has found that the amount does not seem significant. This comes as mining operations have not ceased with mineral extraction and are still producing mineral products as before.

From the analysis studied and performed during this research study it was found that the actual impact of the MPRRA was not of such significance that it changed the mining industry too drastically.

### **4.3 RECOMMENDATIONS FOR FUTURE RESEARCH**

One area for future research would include whether South Africa's legislation of mineral royalties is competitive enough to promote future investment opportunities keeping in mind that the country holds the richest mineral soil in the world. A study comparing various mineral royalty reforms would assist investors with making the best possible financial assessment in terms of investment return.

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