

# **Mining taxation**

## ***the South African context***

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**Economic Tax Analysis**

**August 2013**

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## **1 Introduction**

By international standards, South Africa has abundant mineral resources and is a major producer and exporter of a diverse range of minerals. The country accounts for over 30 percent of the global production of platinum group metals (PGMs), ferrochromium, and aluminosilicates. It is the world's leading producer of chrome ore, vermiculite and vanadium, and a leading exporter of PGMs, gold and vanadium. The mining sector has faced difficulties recently, with pressure on both demand and supply. A general decrease in demand, largely in response to a slowdown in China's economic growth, led to a commodity price decline, while labour unrest in the second half of 2012 interrupted production on the supply side.

Mining production was performing well in the first half of 2012, with four consecutive months of positive growth leading up to July 2012. Minerals sales dampened from the second half of 2012 – affected by weaker global demand and, to some extent, a softer commodity price environment. The slowdown in the Chinese economy also weighed on sales of key export commodities, including iron ore, manganese and coal. Production was significantly depressed in the third quarter of 2013, lowering the sector's contribution to GDP and corporate income tax collections. Production of platinum group metals fell considerably – primarily due to the industrial action at Lonmin's Marikana mine (the world's third-largest platinum producer) that began in August. The strike action, regarding wage demands, lasted for 42 days and resulted in an estimated 90 000/oz. of lost platinum output.

The beginning of 2013 saw some positive movements – the downward trend in commodity prices observed since the beginning of 2011 started to reverse and the IMF Primary Non-Fuel Commodity Price Index rose 6.5 per cent in May from the start of the year. There was a month-on-month increase in both mining output and mineral sales in January 2013. This increase was broad-based with all minerals reflecting higher output levels, except diamonds. Monthly mining output contracted in February 2013 for the first time since October, while mineral sales continued the positive trend. This was mainly supported by stronger gold, iron ore and manganese sales; the continued restocking of iron ore by China; and potentially a weaker rand. Coal sales have been weakening in the face of lower international prices.

The unfavourable climate in commodity markets over the second quarter culminated in a slow down in output growth on a quarterly basis. Gold (-11.7 per cent) and PGMs (-32.6 per cent)<sup>1</sup> contributed the most toward the restrained quarterly growth. Most minerals recorded declines in production, with the exception of iron ore and building materials that experienced expansions in June. Year-on-year, production declined by 6.2 per cent – primarily driven by gold, PGMs, diamonds, coal, nickel and copper. Monthly mineral sales declined by 11.3 per cent in May, following a decline of -0.4 per cent in April. Gold (-24 per cent) and PGMs (-19.6 per cent) contributed the most.

The sector's subdued performance in the second quarter is the result of a normalisation in growth. It follows the large expansion recorded in the first quarter that was driven by base effects owing to low production in the last quarter of 2012. The sector is likely to record subdued growth in the upcoming

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<sup>1</sup>Follows a strong recovery in May - decline may be partly explained by an underground wildcat strike at Amplats's Thembelani mining operation in Rustenburg that disrupted production. Eastplats also reduced production after placing their Crocodile River mine on care and maintenance. Finally, Northam Platinum's Zondereinde mine halted production following a fatality at the end of May.



months as fundamentals drive the sector's performance. Mineral Sales, particularly gold sales, may continue to decline as demand from India and China moderates. Global manufacturing momentum as shown by the JP Morgan PMI remained positive in June. However, cost inflation and unresolved wage negotiations continue to pose concerns for the sector. Declining commodity prices further suggest weaker growth over the outlook period<sup>2</sup>.

Governments across the globe have generally attempted to capture an increased share (or what they deem to constitute a fair share) of the proceeds from the mining sector. Various commentators put forward different thoughts on the reasons behind this. One interpretation views governments through history showing a keen interest in nationalising mines when the sector is performing well, but showing preference for privatisation when market conditions for minerals are weak. Some see the changes being very much linked to the timing of government changes in ideology, while it is also thought by some that the current situations are simply a re-negotiation of charters/commitments.

The mining sector and the way mines are taxed domestically has been under increased scrutiny and attracted much speculation from various stakeholders in recent months. The reasons largely centre on the role that the mining sector could potentially play in economic development, and a growing sense that the minerals in the ground belong to the people, and thus the benefits flowing from them should be more widely enjoyed. South Africa is certainly not alone in its insistence for more benefits to flow to the public sector or society at large.

This paper focuses on the taxation of mining in South Africa and attempts to contextualize the current royalty regime by considering how it relates to commodity price cycles, profits and other factors that influence the sector; as well as how it fares in relation to other fiscal instruments. The next section gives an overview of South Africa's mining sector as the broader context within which the mining tax debate falls.

## **2 Overview of the Mining Sector**

By the early 1980's much of the South African economy remained based on the mining-industrial complex, even though, as a percentage of GDP, the mining sector had been declining over a long period of time<sup>3</sup>. The National Development Plan states: "The collective share of direct mining activities of South Africa's GDP has declined from 21 per cent in 1970 to only 6 per cent in 2010"<sup>4</sup>. Figure 1 shows mining and quarrying contribution to gross domestic value add from 1994 to 2011.

Even so, mining, minerals and secondary beneficiated products account for almost 60 per cent of export revenue and its importance to the economy (even today) should not be underestimated – many direct and indirect linkages between mining and other sectors are critical. Several downstream industries rely on the outputs of the sector as crucial inputs. A simple example is how coal feeds into electricity production, which in turn is a critical input into many manufacturing processes. Mining also constitutes a major source of demand for many sectors; upstream industries supply mines with

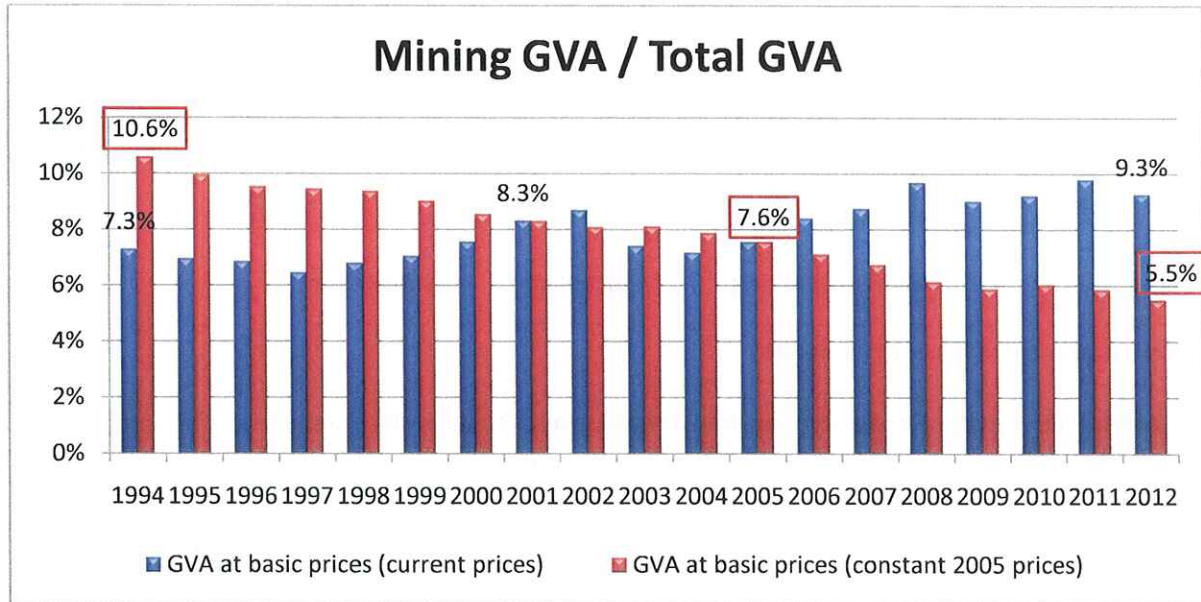
<sup>2</sup> Economic Policy

<sup>3</sup> Largely due to the declining contribution of gold to the economy.

<sup>4</sup> It is important to qualify this statement. This is referring to real GDP contribution. If one considers the nominal contribution, the picture looks quite different. This is largely the result of the difference between the deflator used for mining GDP as compared to total GDP. The main driver behind this is wage growth in this sector.

metals (structural steel, cables, tracks), machinery (headgear, earthmoving equipment), transport, financial services and chemicals (explosives). Data from the IDC and Quantec reveals that in totality (including indirect effects) mining contributes R468 billion or 18.7 per cent to GDP and provides jobs for 1.36 million people (16 per cent of total employment).

Figure 1: Mining value added as a percentage of gross domestic value add<sup>5</sup>



Source: South African Reserve Bank

An important consideration is the relative competitiveness of peer countries. Despite South Africa having the main global deposits of minerals such as platinum and manganese, the sector has underperformed relative to its peers. During the commodity boom (2001 – 2008), the industry in South Africa contracted annually by 1 per cent, compared to an average growth of 5 per cent per annum in the top 20 mining exporting countries.

Aggregate employment data shows a sector that has been under pressure. Total employment in the sector has contracted by 16 per cent between 1994 and 2011, mainly reflecting a 63 per cent loss of employment in gold mining (offset to some degree by increased employment in the platinum sub-sector). Employment growth in other sub-segments of mining rose between 2002 and 2008, before falling in 2009 and recovering somewhat in 2010 and 2011. Mining-related employment figures will be under severe strain going forward given the combination of setbacks experienced in 2012 – Marikana, rising costs, subdued global growth translating into lower demand for minerals and a related decrease in some commodity prices, excess capacity in the platinum sector and other challenges. Other sub-sectors that are possibly the fastest growing currently – iron ore and manganese – employ very few people.

<sup>5</sup>Gross value added provides a monetary value for the amount of goods and services that have been produced, less the cost of all inputs and raw materials that are directly attributable to that production.



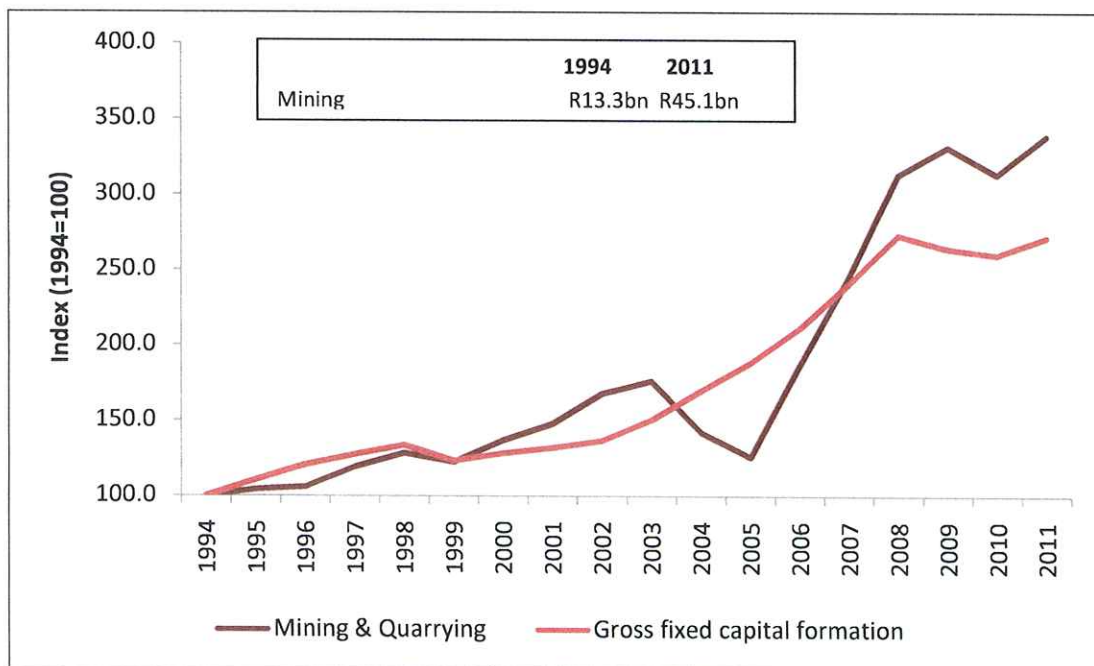
Figure 2: Employment growth



Source: Department of Minerals Resources

Investment in the mining and quarrying industry has grown steadily since between 1994 and 2011 at an annual average real growth rate of 7.4 per cent. Investment in mining has grown faster than investment in manufacturing over that period. A decline in mining investment between 2003 and 2005 was observed. Some analysts attribute this decline in part to uncertainty resulting from the enactment of the Minerals and Petroleum Resources Development Act in 2002. It's worth noting that despite a growth in mining investment, the pace has been slower compared to that in other mining countries. This outcome has led to South Africa's share in global exploration budgets falling from 8 per cent in 2004 to 0.5 per cent in 2012.

Figure 3: Investment in the mining & quarrying sector

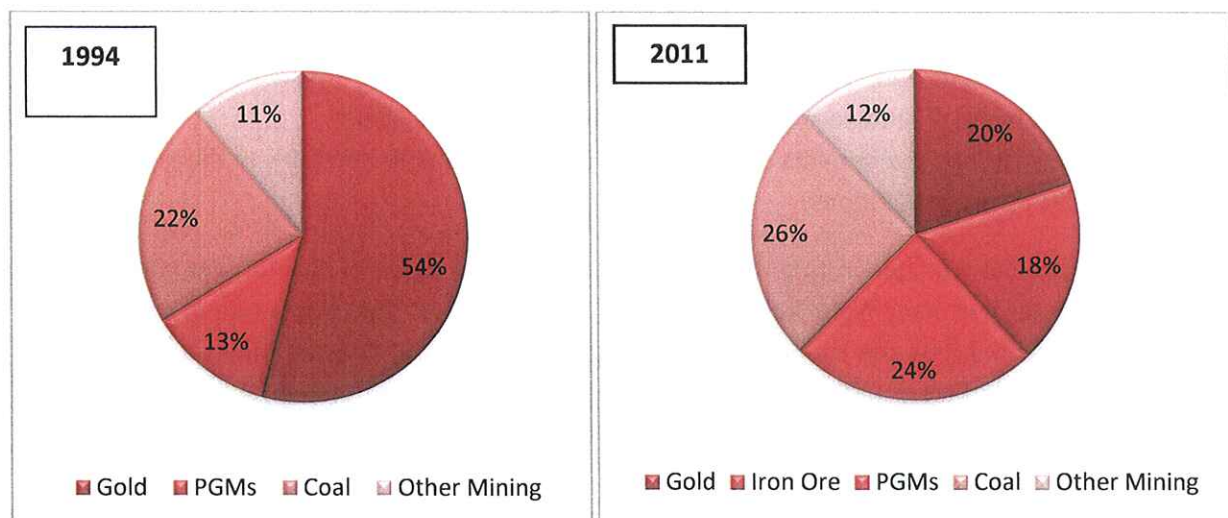


Source: South African Reserve Bank

South Africa’s mining industry has for many years been dominated by gold and coal mining. This has changed significantly over time owing to the decline in gold mining and the discovery of vast platinum reserves. Platinum is now the largest mining activity in the economy. Gold, platinum group metals (PGMs) and coal, are the largest sub-segments of mining, followed by diamonds, other non-metallic minerals and iron ore.

In 2011, minerals sales amounted to R370 billion. The bulk of this was from gold, PGMs, coal, and iron ore sales. The composition of mineral sales is significantly different from that in the early 1990s, when gold sales accounted for more than half of mineral sales revenue. Figure 4 shows a comparison between the composition mineral sales in 1994 and 2011.

**Figure 4: Mineral sales (value), 2011**



Source: Statistics South Africa

Strong export growth has been witnessed in minerals such as iron ore and manganese, which are important feedstock inputs in the manufacture of steel.

**Table 1: Export performance of selected commodities**

Commodity	Exports as % of production	Average Export Volumes*		Annual average growth (1994-2011)
		1994-2000	2001-2011	
Gold	97.5	487 029	269 261	-6.8%
PGMs	84.5	185 658	241 031	2.4%
Coal	27.3	59 933 682	66 464 122	2.1%
Copper	28.6	73 578	35 926	-6.6%
Nickel	61.5	17 646	21 804	4.1%
Iron Ore	89.4	21 040 889	32 538 836	5.9%
Manganese Ore	78.3	1 652 545	3 397 821	10.2%

Source: Department of Mineral Resources

\*all in tons, except gold and PGMs, measured in kgs



### **3 A role for government in the mining sector**

Several features of the mining and minerals sector set it apart from other sectors in the economy. Firstly, natural resources are exhaustible. There is no guarantee that future generations will be able to enjoy the benefits of extraction of the resources, so a role emerges for government to capture a portion of the rents from natural resources in order to ensure continued economic development (through prudent expenditure). Secondly, resource extraction activities hold many benefits for the local economy, but there are also severe social costs involved. These include environmental degradation, rapid currency appreciation in commodity booms and uncertainty of government revenue (due to fluctuating prices). Thirdly, in a lot of cases prices are determined in a world market where producers are price takers<sup>6</sup> and earnings do not bear a strong resemblance to costs. This can pose a significant risk to mining companies when commodity prices are low, but conversely it brings the potential for a significant windfall gain when commodity prices are high. These features point to a role for government to tax the resource sector in an appropriate way to ensure that:

- revenue is buoyant<sup>7</sup> and normalised over the commodity cycle; and
- both the costs and the benefits of resource extraction are distributed fairly in the present time as well as across generations.

South Africa also has a unique history that necessitates a certain degree of government intervention. The mining sector has many historical linkages with former policies that play a role in some of the structural problems facing the country. These include the 1913 Land Act, the Mines and Work Act that gave white workers a monopoly of skilled operations, apartheid industrial policies, migrant labour systems, rents flowing to colonial powers, etc. Before the introduction of the Mineral and Petroleum Resources Development Act, mineral rights were vested with the owner of the land and charging royalties was difficult. The mining sector has also had an influence on spatial development (marginalised communities) and has been criticised for its role in the strong currency and creating a bias towards certain exports and in terms of investment flows (away from potentially labour-absorbing sectors).

### **4 Mining Taxation – theoretical considerations**

#### **4.1 The evolution of mineral fiscal regimes**

Fiscal regimes for minerals are often different to those prevailing in other sectors owing to the presence of resource rents and unusual risks, making the taxation of minerals both important and challenging. As owners of the minerals, governments aim to capture the resource rent<sup>8</sup>, which does not conflict with the core taxation principle of neutrality given that rent is pure surplus. Risks inherent in this sector include: long exploration periods with uncertain geological outcomes; high sunk costs; uncertain future revenues due to very volatile and unpredictable mineral prices; tax liabilities that may constitute a substantial and primary benefit to the host country; a long period of

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<sup>6</sup>There are a number of cases where companies retain significant market power.

<sup>7</sup>Buoyancy of revenue refers to the ability of the tax system to extract revenue over the whole business cycle, or in this case the commodity cycle. It is important that the revenue does not dry up in downturns.

<sup>8</sup>Resource rents represent surplus revenues from a deposit after deducting costs (exploration, development and extraction) and a 'normal' rate of return to capital (includes a risk-free component and a risk premium that compensates a risk-averse private investor for the risks incurred in the activity).



production to reach break-even point; the exhaustibility of resources and potentially significant mine rehabilitation and community support costs.

The unique nature of the mining sector tends to result in special tax dispensation that includes a wide variety of fiscal instruments, such as corporate income taxes, royalties, resource rent taxes, windfall taxes and state ownership. The risks involved often lead governments to provide accelerated depreciation allowances and extended loss-carry forward limits.

Mineral fiscal regimes vary widely between countries, depending on country risk, preferences and capabilities. Investors may be willing to pay higher taxes when the perceived levels of risk are lower. One country may prefer one form of fiscal instrument over another because it is easier to administer and provides a stable revenue source, while other countries favour a more progressive regime that entails government taking on more risk with the expectation of a higher share in profits.

On top of variation between countries, there has been an evolution of fiscal regimes over time stemming from external events that have influenced mineral prices. A general trend seems to have emerged that is fundamentally driven by periods of ups and downs in commodity prices. When commodity prices are on the increase (e.g. during the 1970s price shocks and 2002-2008 commodity boom), nationalisation and/or capturing higher rents tend to list high on governments' agendas, while a decrease in prices (experienced during 1980s and 1990s) has led to calls for privatisation and restricting government's role to one of regulation and investment promotion. Other influential factors include changes in ideology linked to changes in governments and the re-negotiation of charters / commitments where perhaps previous agreements were concluded during less favourable periods. This entrenches the idea that a country should design its mineral fiscal regime very carefully to avoid warranting changes based on commodity booms and busts or the ideology of the day. The ideal should be a stable regime that factors all elements in, i.e. commodity prices, profitability and risks.

## 4.2 Fiscal instruments in mineral taxation

Mineral fiscal instruments can be broadly classified as follows<sup>9</sup>:

### Rent-based taxes

- *Brown tax* – levied as a constant percentage of the annual net cash flow of a resource project with cash payments made to private investors in years of negative cash flow. Not considered feasible due to cash rebates to private investors, although is a useful benchmark for assessing policy options.
- *Resource rent tax* – avoids the need for cash rebates by allowing negative net cash flows to be accumulated at a threshold rate and offset against future profit. When this balance turns positive, it becomes taxable at the rate of the resource rent tax.

### Profit-based taxes and royalties

- *Corporate income tax* – normally an important part of the fiscal regime for all countries.
- *Profit-based royalty* – normally based on some measure of accounting profit where the government collects a percentage of a project's profit.

### Output-based royalties

<sup>9</sup>Hogan & Goldsworthy, 2010.

- *Ad valorem royalty* – government collects a percentage of the value of production.
- *Specific royalty* – government collects a charge per physical unit of production.

### 4.3 Criteria for assessing fiscal instruments

It is very useful to compare the commonly-used fiscal instruments in the mining sector using the important criteria set out by Hogan and Goldsworthy (2010). These criteria take into account three broad considerations, namely economic efficiency, rent collection and government risk, and administration and compliance costs. Important to note – while useful to consider the characteristics of each instrument in isolation, regimes typically include multiple instruments, necessitating a holistic look at the tax system.

#### *Economic efficiency of a fiscal instrument*

The following aspects will have to be taken into account when trying to establish the economic efficiency of fiscal instruments.

- *Neutrality* – a fiscal instrument is neutral if investment and production decisions for a resource project are not distorted by the tax. Typically, the neutrality criterion is used to evaluate the extent to which some projects that are viable before tax may become unprofitable after a fiscal instrument is applied, resulting in efficiency losses. Rent- and profit-based taxes rank more highly than output-based royalties under this criterion since generated tax revenue tends to vary with project profitability.
- *Project risk* – how the investor perceives the market risks associated with a project. Investors tend to prefer fiscal instruments that result in tax revenue fluctuating with project profitability over those that remain fairly rigid. Rent- and profit-based taxes rank favourably here as varying tax revenue means that both the investor and government share in the risks of adverse market outcomes. An ad valorem royalty (output based), for example, can pose a risk in that it is not responsive to changes in the industry's cost structure.
- *Sovereign risk (or stability)* – this is the investor's assessment of country risks associated with a resource project (including political or policy risks). For example, changes in the fiscal settings over the life of a project may have a significant impact on the future profitability of the project. Rent- and profit-based taxes are seen as preferable under this criterion – the government take tends to vary with project profitability, resulting in the government being less likely to adjust fiscal settings in response to major changes in market conditions. Here, it is very important to consider the broader context facing the mining sector – taxes cannot be viewed in isolation when mining companies are also subject to a variety of other requirements by host governments.

#### *Rent collection and government risk*

This encompasses flexibility, fiscal loss and revenue delay criteria:

- *Flexibility of rent collection* – the capacity of fiscal instruments to collect a reasonable share of the resource rent under a range of future market outcomes. Rent- and profit-based taxes rank more highly here.



- *Fiscal loss*– a situation where government obtains a lower than expected or zero return to the resource, particularly under adverse market outcomes. A fiscal instrument where tax revenue is not responsive to changes in future market conditions results in greater stability in tax revenue flows, reducing the risk of fiscal loss (but not managing the possibility of fiscal gain well either). Under this criterion, output-based instruments rank better since royalty payments are due in all years that production is positive, regardless of whether the project is in a profit/loss position.
- *Revenue delay*– the risk that the government does not collect a return to the resource for a significant time period after project commencement. Under a resource rent tax, for example, revenue collection is delayed until investors have received a specified threshold rate of return on their capital outlays. As a result, output-based instruments are favoured here since revenue is collected throughout the production phase.

#### *Administration and compliance costs*

The costs incurred by government in designing, implementing and monitoring compliance with a fiscal instrument as well as the costs incurred by investors in complying with the fiscal instrument are also important considerations. Here, output-based instruments rank higher, but are also more likely to be adjusted over time as market conditions change. Rent-based taxes tend to rank lowest owing to the additional calculations required.

It is evident that while output-based instruments tend to rank highly on government risk (fiscal loss and revenue delay), administration and compliance criteria; rent/profit-based taxes rank well on neutrality, flexibility and investor risk criteria. In an attempt to balance the various criteria and address the limitations of a basic instrument, some countries have combined ad valorem royalties with a rent or profit-based instrument.

There is also a much broader context relating to sovereign (stability) risk that extends beyond taxation. The taxation of mining constitutes one of many ways that the sector is required to contribute towards the public sector or society at large. When examining the suitability of a taxation regime, it is critical that one understands the broader context within which this debate falls. According to Ernst & Young's latest report<sup>10</sup> on risks facing mining, resource nationalism<sup>11</sup> retains the number one risk ranking, with many governments around the world going beyond taxation in seeking a greater take from the mining sector. This generally includes a wave of requirements introduced around limits on foreign ownership, mandated beneficiation, export levies and various corporate social investment requirements.

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<sup>10</sup>Ernst & Young, 2012-13. Business risks facing mining and metals 2012-13 Available:

<http://www.ey.com/GL/en/Industries/Mining---Metals/Business-risks-facing-mining-and-metals-2012---2013>

<sup>11</sup>Broadly, we can think of resource nationalism as the phenomenon of sovereigns seeking to assert control over and financial or revenue stakes in the extractive process by setting or changing contractual terms for foreign resource extraction companies (Oxford Analytica, 2012).

## Top ten risks over five years

2008		2012	
01	Skills shortage	01	Resource nationalism
02	Industry consolidation	02	Skills shortage
03	Infrastructure access	03	Infrastructure access
04	Maintaining a social license to operate	04	Cost inflation
05	Climate change concerns	05	Capital project execution
06	Rising costs (cost inflation)	06	Maintaining a social license to operate
07	Pipeline shrinkage	07	Price and currency volatility
08	Resource nationalism	08	Capital management and access
09	Access to secure energy	new	Sharing the benefits
10	Increased regulation	10	Fraud and corruption

*Remained in the top 10 over 5 years*

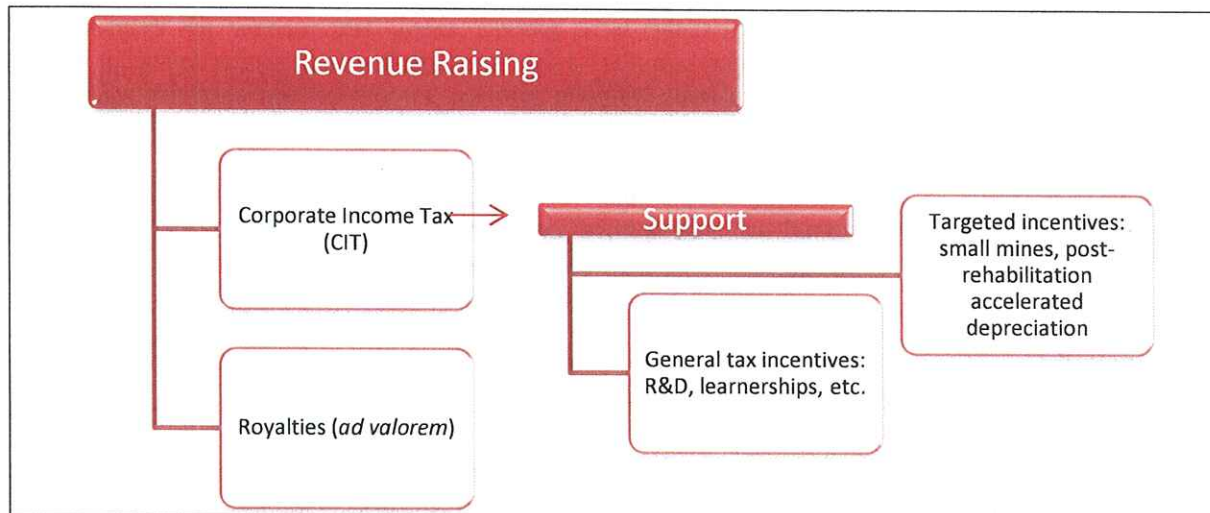
Source: Ernst & Young (2012-13:6)

Section 5 encompasses the mining tax regime in South Africa and considers how it fares in terms of the assessment criteria.



## 5 Mining taxation in South Africa

In South Africa, mining taxation as a revenue raising instrument consists of corporate income tax and mineral royalties. Various relief or support measures are incorporated into the corporate income tax regime.



### 5.1 Corporate Income tax

Mining companies are taxed at the normal CIT rate (28%), except for those involved in gold mining. Gold mining activities are taxed according to special formula:  $Y = 34 - (170/X)$

- Where  $Y$  = rate of tax to be levied,
- and  $X$  = the ratio expressed as a percentage: taxable income from gold mining to total revenue (turnover) from gold mining.

The aim of the gold formula was to encourage the mining of marginal gold mine i.e. extending the life of the mine. Oil and gas companies also qualify for a special tax dispensation to help encourage oil and gas exploration.

### 5.2 Mineral Royalties

South Africa's mineral royalty regime was introduced in 2010 in terms of the Mineral and Petroleum Resource Royalty Act, No.28 of 2008 (MPRRA). The rationale for a mineral royalty is the payment to the resource owner (typically the state) by the extractor in return for the right to mine<sup>12</sup>. The MPRRA provides for the compensation to the State (as custodian) for the permanent loss of non-renewable resources.

Royalties can be calculated based on the volume (weight) of minerals or on the value (*ad valorem*) of those minerals. Very few countries with mineral and petroleum resources currently implement the volume-based royalty regime. South Africa's royalty regime is based on the value (*ad valorem*) of minerals, but also takes an element of profit into account when calculating the royalty rate. The regime has a charging provision and affords relief in certain instances (see Table 2). The

<sup>12</sup>Boadway, R. & Keen, M. 2008. Theoretical Perspectives on Resource Tax Design

royalty charging provision consists of two elements, namely the royalty **base** (adjusted gross sales) and the royalty **rate**. Royalty payments are triggered by the 'transfer'<sup>13</sup> of minerals.

**Table 2: Royalty elements**

<b>Charging Provisions</b>	
<i>Royalty base</i>	<i>(Adjusted) gross sales value of mineral resource transferred</i>
<i>Royalty rate</i>	<i>Rate determined by a formula taking into account the extractor's profitability ratio (EBIT / Adj. gross sales), and subject to minimum and maximum level; Different formulas for refined and unrefined mineral resources</i>
<b>Relief Provisions</b>	
<i>Marginal mine relief</i>	<i>Rate formula provides automatic profitability relief to marginal mines</i>
<i>Relief to smaller and start-up mining enterprises</i>	<i>Small (mining) business corporation exemption from royalties if gross sales i.r.o. all mineral resources transferred does not exceed R10 million in the year of assessment and the would-be royalty amount is below R100 000 p.a.</i>
<i>Fiscal Stability</i>	<i>Fiscal guarantee agreement entered into with extractors to ensure that extractors will not be affected by changes in rate formula</i>

The Royalty Act distinguishes between a 'refined mineral resource' and an 'unrefined mineral resource'. A mineral resource is **refined** when it is in a readily saleable refined condition through undergoing a comprehensive level of beneficiation, smelting and refining. These minerals are listed in Schedule 1 of the Royalty Act. Examples include gold (processed to at least 99.5% purity) and platinum group metals (processed to at least 99.9% purity).

**Unrefined** mineral resources are listed in Schedule 2 of the Royalty Act and include minerals such as coal, diamonds, concentrates and bulk production; as well as dual listed minerals that fail to meet the specified conditions Schedule 1. In instances where minerals fall in both schedules (e.g. platinum), the mineral will be viewed as refined if developed to or above the refined condition; otherwise it is deemed unrefined. For example, platinum with purity of 99% or above is viewed as refined, while anything less than 99% is considered unrefined.

#### *Calculation of the royalty*

Separate calculations have to be performed for refined and unrefined minerals; extractors must aggregate each element (adjusted gross sales and EBIT<sup>14</sup>) of the formula for both mineral groups. Adjusted gross sales and EBIT calculations are thus not done on a mineral-by-mineral basis. Adjusted gross sales serves a dual purpose – it is the tax base, as well as the denominator (relative to EBIT) in determining the profitability ratio. The adjustment is included to ensure that extractors are not incentivized to sell minerals below the specified conditions and erode the tax base as a result. If, for example, gold is disposed of at 98% purity instead of 99.5%, an upward adjustment of  $99.5/98=1.015$  applies.

<sup>13</sup>'Transfer' is defined as the disposal of a mineral resource, or the 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. Because mineral resources are often temporarily exported for refining, the temporary export of mineral resources is not regarded as a transfer.

<sup>14</sup>Earnings before interest and tax (accounting profit)



For **refined** mineral resources the formula to determine the percentage to be applied to the tax base is:

$$0.5 + [\text{EBIT} / (\text{gross sales in respect of refined mineral resources} \times 12.5)] \times 100$$

For **unrefined** mineral resources the formula to determine the percentage to be applied to the tax base is:

$$0.5 + [\text{EBIT} / (\text{gross sales in respect of unrefined mineral resources} \times 9)] \times 100$$

The minimum rate is 0.5% for both refined and unrefined minerals. This ensures that the government (as custodian) is guaranteed of a minimum royalty payment. The royalty rate varies according to the profitability of a mine and is capped at 5% for refined mineral resources and 7% for unrefined mineral resources. The maximum (applicable during ‘boom’ times) and minimum (applicable during ‘bust’ times) rates reflect the State’s readiness to share in both the rents and risks of mining. The variable royalty percentage rates also provide automatic relief for marginal mines. This risk-sharing takes into account cyclical commodity prices and declining ore grades. Small miners are provided with special relief measures – an extractor is exempt from the royalty if gross sales in respect of all mineral resources transferred does not exceed R10 million in the year of assessment, and the would-be royalty imposed does not exceed R100 000.

#### *Payment of the royalty*

The royalty regime is administered by the South African Revenue Services (SARS) that collects the royalties on behalf of the state. The royalty period runs parallel to the extractor's year of assessment<sup>15</sup> for income tax purposes; hence the mineral royalties are paid in a similar manner as provisional tax under the Income Tax Act. The royalty payment process is summarized in table 3 below:

**Table 3: Royalty payments**

Date of payment		Payment amount
1st payment	Six months after start of year of assessment	Estimated royalty for year x 1/2
2nd payment	end of year of assessment	Estimated royalty for year less 1st payment
3rd payment	six months after end of year of assessment	Actual royalty for year less 1st & 2nd payments

### **5.3 How does the South African regime fare in respect of the assessment criteria?**

It is important to interrogate South Africa’s regime against the assessment criteria set out in section 4. With regards to economic efficiency, the royalty regime satisfies the neutrality criterion in that the required royalty payment will vary with project profitability, ranging from 0.5 per cent to 5 or 7 per cent, depending on the grade of mineral. The regime is not rigid and so does not pose much project risk as it recognises that there are likely to be changes in the industry’s cost structure over time. The maximum and minimum rates reflect government’s readiness to share in both the rents and risks of

<sup>15</sup> Mineral and Petroleum Resources Royalty Administration Act (29/2008) (MPRRAA).

mining. The risk-sharing factors in cyclical commodity prices and declining ore grades, while providing automatic relief for marginal mines.

Sovereign risk is perhaps the main area that may deter investors. The latest mining survey by the Fraser Institute reveals that South Africa has dropped further in its rankings by investors. The biggest call is for clarity and policy direction. The nationalisation debate has been put to rest, but there are other issues relating to ‘resource nationalism’ that need to be clarified, such as the talk of a resource rent tax, the mining charter and its requirements, and the beneficiation strategy. Production risks are also important to consider – particularly electricity and transport prices, and labour.

In terms of rent collection and government risk, the royalty regime does well. The flexibility criterion relates to the capacity of fiscal instruments to collect a reasonable share of the resource rent under a range of future market outcomes. This is a difficult one to judge as one would first have to decide what constitutes a ‘reasonable share’. Royalty collections amounted to R3.6 billion and R5.6 billion for 2010/11 and 2011/12 respectively. While the regime may result in lower collections when profits/commodity prices are low, the lower bound of the formula makes sure that government will always collect something. This also makes it preferable to a resource rent tax in that there are no years of zero returns to the resource. Revenue delay is another aspect in which the royalty regime tops the resource rent tax from a government risk perspective – under a resource rent tax revenue collection is delayed until investors have received a specified threshold rate of return on their capital outlays. The South African regime thus encompasses a good balance in terms of flexibility and essentially rent collection and government risk.

When considering administration and compliance costs, output-base instruments tend to rank higher, while rent-based taxes rank the lowest owing to complicated calculations. The royalty formulae do require more calculations than a simple *ad valorem* tax would for example, but the calculation is fairly straightforward and much simpler to administer and comply with than a resource rent tax (that requires defining and calculating an appropriate tax base and a ‘normal rate of return’). When comparing South Africa’s royalties with a resource rent tax in this sense, a resource rent is more difficult to administer – both in terms of defining the tax base and calculating the rent.

Overall, the royalty regime was carefully designed to factor in all the criteria, making sure that the regime is flexible and the risk of mining is shared by both investors and government. By doing so, government collects more when profits and commodity prices are high, and investors and marginal mines are afforded relief when these circumstances reverse.

#### **5.4 Determining a fair share**

When it comes to determining what constitutes a fair share in terms of revenue collections from the current royalty regime and tax contribution generally, one needs to consider what the international benchmark is, i.e. how much do mines in peer countries contribute to tax collections.

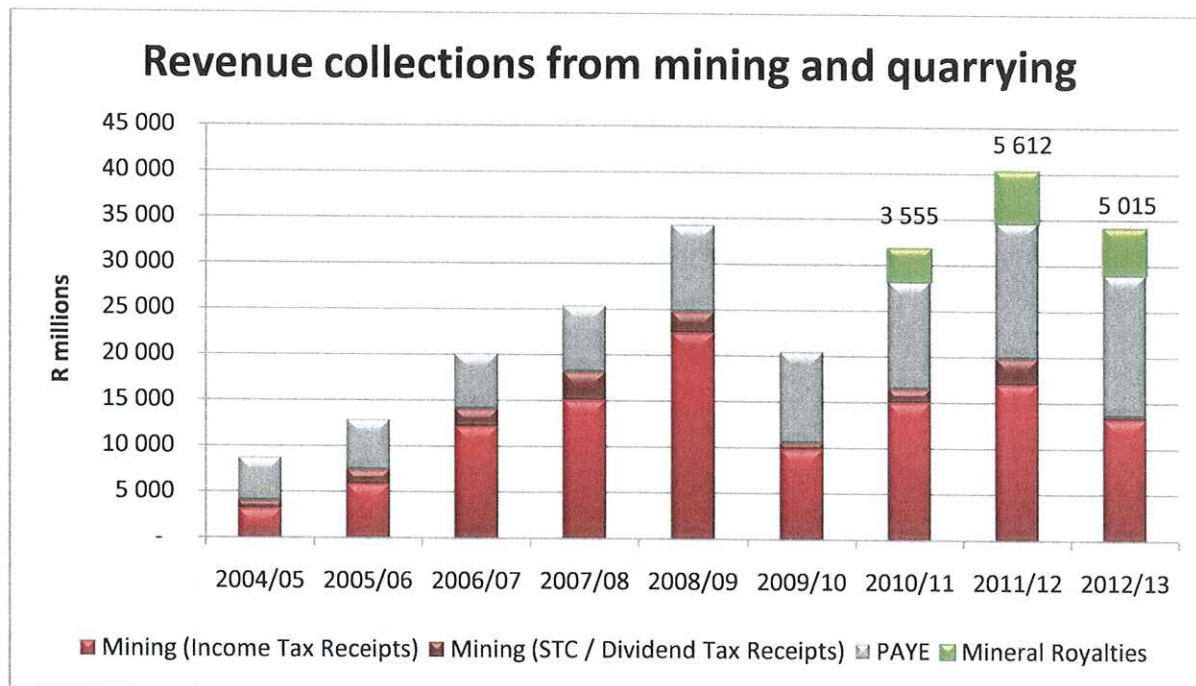
#### **5.5 Mining revenue trends**

Corporate income tax revenue from the mining sector increased between 2004/05 and 2008/09. Following the financial crisis in 2008, corporate income tax revenue from the mining sector declined substantially in 2009/10 and recovered slowly in 2010/11 and 2011/12. Mining-related corporate



income tax revenue is expected to contract in 2012/13, largely due to lower commodity prices and labour unrest. Figure 5 is a summary of the main taxes that originate from the mining sector.

**Figure 5: Revenue collections (CIT, STC, PAYE and Mineral Royalties) – mining sector (2004/05 – 2011/12)**



Source: South African Revenue Service

Table 2 shows royalty payments according to mineral for the 2010/11 (R3.6bn), 2011/12 (R5.6bn) and 2012/13 (R5bn) tax years. The mining of iron ore brought in the most revenue, almost half of the total, with platinum and gold / uranium contributing the second and third highest royalty payments respectively. Coal, which enjoys the largest share of sales over other minerals, only contributed 5.3 per cent of total royalty payments in 2011/12.

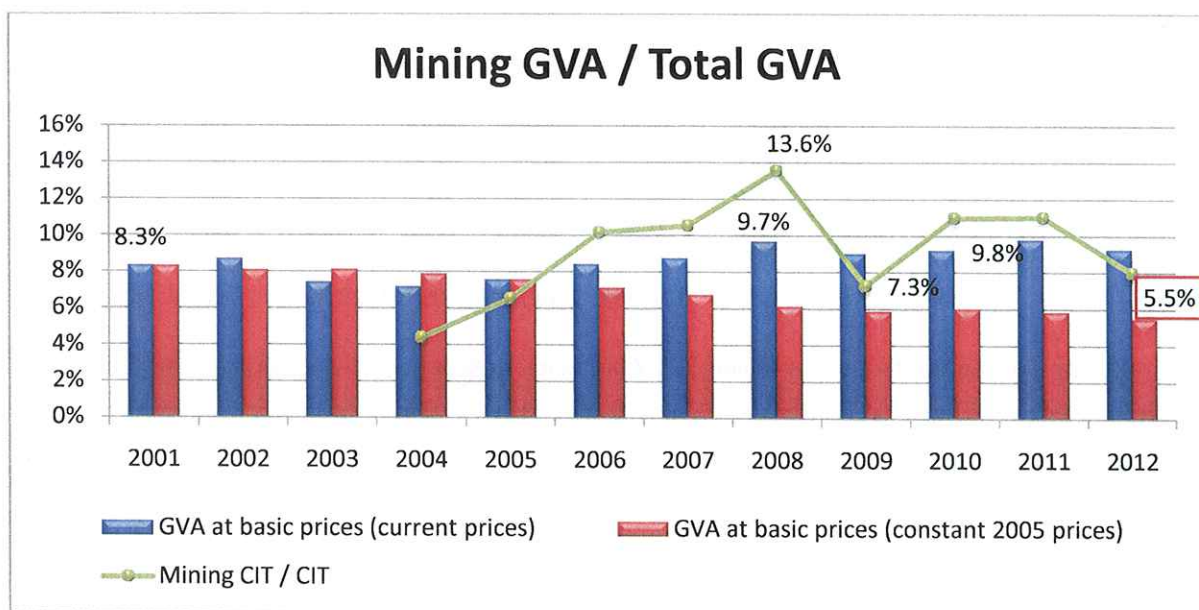
**Table 4: Mineral and Petroleum Resource Royalties Payments by Commodity, 2010/11 – 2011/12**

R million	2010/11	2010/11 Relative Proportions	2011/12	2011/12 Relative Proportions	Year-on-Year Growth
Iron Ore	1,675	47.1%	2,501	44.6%	49.4%
Platinum	481	13.5%	853	15.2%	77.3%
Gold and / or Uranium	515	14.5%	817	14.6%	58.5%
Industrial Minerals	40	1.1%	299	5.3%	646.1%
Coal	258	7.3%	297	5.3%	15.3%
Diamond	110	3.1%	290	5.2%	162.9%
Other	178	5.0%	183	3.3%	2.6%
Manganese	104	2.9%	149	2.7%	43.8%
Zinc	69	1.9%	143	2.5%	107.3%
Copper	125	3.5%	79	1.4%	-36.4%
<b>Total</b>	<b>3,555</b>	<b>100%</b>	<b>5,612</b>	<b>100%</b>	<b>57.9%</b>

Source: South African Revenue Service, 2012 Tax Statistics, p.9

Figure 6 shows mining-related corporate income tax (CIT) revenue as a percentage of total CIT revenue and gross value added by the mining sector as a share of total GVA / GDP (both in nominal and real terms). The boom in commodity prices is largely responsible for the rapid increase in mining revenue as a share of CIT – rising from 4 per cent of GDP in 2004/05 to just below 14 per cent of GDP in 2008/09. The impact of financial crisis is evident from the drop to 7.3 per cent in 2009/10, after which the mining sector started contributing a higher share again. However, this was short-lived and flattened out before decreasing again in 2012/13. Subdued global growth translating into lower export demand for minerals from major trading partners (mainly Europe and China) and the protracted strike activities in the sector were large role players.

**Figure 6: Mining CIT revenue as a percentage of total corporate income tax revenue (2004/05 – 2011/12) vs. Mining value added as a percentage of total GVA / GDP (2004 – 2011)**



Source: South African Revenue Service, South African Reserve Bank

## 6 Reviewing mining taxation in South Africa– calls for change

### 6.1 SIMS Report

The report on State Intervention in the Mining Sector (SIMS) calls for a review of the way resources are taxed and argues for the use of a **mineral resource rent tax** as a means to allow South African citizens to fully share in the gains associated with the country's mineral wealth. The report states the following:

*Tax regimes which augment with increasing returns and thus allow the state to garner differential rents for above average grades and windfall profits are necessary for mineral resources to garner the state's fair share of resource rents from its mineral assets. In addition to straight corporate tax as a percentage of profit, a Resource Rent Tax (RRT) should be implemented (similar to the new Australian MRRT<sup>16</sup>) of 50%, which would share the exceptional*

<sup>16</sup>This is explained further in the section on Australia



return on investment (resource rents) equally between the resource owner (the people) and the concessionaire (mining company).

*The RRT trigger is (sic) after the “expected” return on investment has been achieved (Treasury long-bond rate plus a margin). A RRT would give the state its share of the differential rents embodied in rich and/or amenable mineral deposits. South Africa’s gold formula can capture resource rents (depending on its configuration), but should be replaced by a common tax regime for all minerals, comprising royalties, CIT (corporate income tax) and the RRT.*

The report argues that the State should concurrently share some of the risk of discovering and developing new viable mineral deposits via the following means:

- *Dramatically increased investment in nationwide systematic geo-mapping comprising geological, geophysical, geochemical and other relevant surveys. This will significantly improve the geo-data platform and lower the exploration risk for investors.*
- *The development of select deposits by the Council for Geo-Sciences (CGS) for subsequent concession.*
- *The State Mining Company<sup>17</sup> (SMC) taking on exploration risk for select deposits of strategic minerals to supply the nation’s needs.*
- *Permitting a 50% immediate write-off of eligible private sector exploration expenditure on new terrains (prospecting licenses) as negotiable tax certificates (similar to the old 37e beneficiation concession)*

The SIMS report calls for resource rent tax revenues to be ring-fenced and kept in an offshore “sovereign” wealth fund (SWF) so as to ameliorate currency appreciation during resource booms, stabilise fiscal revenues over booms and busts, reinvest in the development of the minerals sector and invest into long-term infrastructure. The SWF is envisaged to finance three funds, namely a Minerals Development Fund, a Regional Trade Infrastructure Fund and a Fiscal Stabilisation Fund.

What the SIMS report fails to do is explain what it means by “...to garner the state’s fair share of resource rents from its mineral assets”. Besides showing that the current royalty regime is robust and carefully considered to take the best of all fiscal instruments and assessment criteria into account, it is difficult to prove that it contributes a fair share to government when this term remains undefined. It is thus necessary to compare South Africa with taxation contributions in other countries to understand this better.

In addition, the report also fails to explain the history of the Australian MRRT and the rationale for introducing it. Australia’s situation is quite different to that of South Africa. Australia<sup>18</sup> operates under a federal system under which State and Federal governments typically tax non-renewable

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<sup>17</sup>The SIMS Report states that a South African State Mining Company (SMC) could be initially capitalised by transferring all current state holdings in mineral companies, mainly currently held on behalf of the state by the IDC: e.g. Foskor, Kumba, Mittal SA, Sasol, etc., but also by PIC343 and CEF344, to it and initially be resourced and run by the IDC as a subsidiary, until legislation to establish it as a free-standing SOE is in place.

<sup>18</sup>The Parliament of the Commonwealth of Australia. Explanatory Memorandum on the Minerals Resource Rent Tax Bill 2011.

resources by applying a royalty to production. These are generally applied on the basis of volume or value and do not take into account how profitable a mining operation is.

The Australian MRRT originates from the recommendations of the Australia’s Future Tax System (AFTS) Review that found royalty regimes applied by the States and Territories to be relatively inflexible and among the most distorting taxes in Australia. The Australian Government decided that, from 1 July 2012, the MRRT would apply to profits from coal and iron ore operations, while the Petroleum Resource Rent Tax would be extended to all offshore and onshore gas and oil projects. These commodities account for the bulk of Australia’s mineral wealth.

An article in the Mining Weekly<sup>19</sup> publication states that the MRRT in Australia failed to generate any revenue in its first three months, as coal and iron-ore prices declined sharply. Since its inception in July 2012, the MRRT has been faced with falling commodity prices, with reports suggesting that companies like Rio Tinto, BHP Billiton and Xstrata, were currently (at the time of the article) not liable for any tax payments in terms of the MRRT. If South Africa implemented such a regime, the same results are likely.

In addition to South Africa’s royalty regime faring well in terms of the assessment criteria, it is also seen to surpass the merits of a resource rent tax. Table 5 provides a comparison between royalties and resource rent taxes.

**Table 5: Mineral royalties compared to resource rent taxes**

Mineral Royalties	Resource Rent Taxes
<p><i>Advantages:</i></p> <ul style="list-style-type: none"> <li>▪ Over-extraction of resources is inhibited (ensures an efficient extraction path) – can however depend on length of investor’s horizon ;</li> <li>▪ Yields revenue from the very start of production;</li> <li>▪ Revenue stability from a more stable and predictable tax base (revenues are buoyant and normalised over the commodity cycle);</li> <li>▪ Lower administration and compliance costs.</li> </ul>	<p><i>Advantages:</i></p> <ul style="list-style-type: none"> <li>▪ Theoretically attractive as windfall gains are targeted, which governments often use to argue the point that more appropriate benefits accrue to the domestic economy and its people.</li> </ul> <p><i>Disadvantages:</i></p> <ul style="list-style-type: none"> <li>▪ Only imposed when profits are abnormally high and no revenue collections when profits are low (s.t. the commodity cycle);</li> <li>▪ Leads to pro-cyclical volatility of revenues;</li> <li>▪ It is not very efficient in that it is levied on</li> </ul>

<sup>19</sup>Swanepoel, E. 2012. Australia’s MRRT fails to bring in any money in its first quarter. *Mining Weekly*. 25 Oct. 2012.



<p><i>Disadvantages:</i></p> <ul style="list-style-type: none"> <li>▪ Can be conducive to high-grading<sup>20</sup> (although this is more likely for specific taxation);</li> <li>▪ Extraction can be timed to minimise royalty payments;</li> <li>▪ Royalties may only recover a portion of mining rents when mining profits are high, but will also tax mining operations where no economic rent is present (South Africa’s regime takes variation into account).</li> </ul>	<p>a very narrow tax base at high tax rates (a low tax rate on a broad base is a better tax principle);</p> <ul style="list-style-type: none"> <li>▪ Defining an appropriate tax base is difficult;</li> <li>▪ Involves more administrative complexity.</li> </ul>
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Appendix A provides some more information on Australia’s MRRT regime, as well as mining taxes in Peru and Ghana.

## 6.2 Possible reforms

As noted South Africa’s royalty regime is based on value and so commodity prices are taken into account in calculating royalty payments. In addition, the royalty formulae for refined and unrefined minerals incorporate an aspect of accounting profit in the form of earnings before interest and tax (EBIT), resulting in royalty rates varying according to the profitability of the mine. The common argument supporting RRTs is that they are profit-based, cash flow, taxes and they differ from most royalties in that they take into account the profitability of a mining operation.

Since South Africa’s mineral royalty regime already accounts for the profitability of mining companies, implementing a MRRT in South Africa may not be necessary. A refinement of the two formulae could be considered that will help to achieve the same objectives as a MRRT. It is important to note that mineral royalty revenue will be much more volatile under a MRRT and the risks of transfer pricing<sup>21</sup> are likely to increase under such a regime. There might also be an incentive to shift profits over time so as to reduce “excess” returns during any particular year.

Table 6 shows current mineral royalty formulae and estimated mineral royalty rates depending on the profitability of the mining company.

<sup>20</sup>Extracting relatively high quality resources.

<sup>21</sup>Transfer pricing is a profit allocation method used to attribute a multinational’s net profit or loss before tax to tax jurisdictions.

Table 6: Current mineral royalty formulae

Estimated Mineral Royalty Rates		
$Y = 0.5 + X / 12.5$ (Refined)		
$Y = 0.5 + X / 9$ (Unrefined)		
Profitability	Refined	Unrefined / Concentrate
EBIT/ Gross Sales (%)	Min = 0.5	Min = 0.5
	B = 12.5	B = 9.0
0	0.5	0.5
10	1.3	1.6
15	1.7	2.2
20	2.1	2.7
25	2.5	3.3
30	2.9	3.8
40	3.7	4.9
50	4.5	6.1
<b>56</b>	<b>5</b>	6.7
<b>58.5</b>	5.2	<b>7</b>
70	6.1	8.3

Table 7 shows possible revised mineral royalty formulae and estimated mineral royalty rates depending on the profitability of the mining company.

Table 7: Possible revised mineral royalty formulae

Estimated Mineral Royalty Rates		
$Y = 0.5 + X / 10.2$ (Refined)		
$Y = 0.5 + X / 7.8$ (Unrefined)		
Profitability	Refined	Unrefined / Concentrate
EBIT/ Gross Sales (%)	Min = 0.5	Min = 0.5
	B = 10.2	B = 7.8
0	0.5	0.5
10	1.5	1.8
15	2.0	2.4
20	2.5	3.1
25	3.0	3.7
30	3.4	4.3
40	4.4	5.6
50	5.4	6.9
<b>56</b>	<b>6.0</b>	7.7
<b>58.5</b>	6.2	<b>8.0</b>
70	7.4	9.5

It might also be necessary to revise the specified condition (valuation point – tax base) for some minerals e.g. coal and iron ore.



## 7 Conclusion

South Africa is a country well-endowed in mineral resources with an economy that encompasses many backward and forward linkages in relation to the mining sector. While mining's contribution to real GDP has been on a decline for a number of years, its linkages with the rest of the economy render its indirect contributions very important. The sector has faced much scrutiny during the past months, both globally and domestically. On the domestic front, there have been calls for the nationalisation of mines; a resource rent tax and, more recently, resource nationalism. The reasons mainly centre on the role that the mining sector could potentially play in economic development, and a growing sense that minerals in the ground belong to the people, and thus the benefits flowing from them should be more widely enjoyed.

The focus of this paper is the taxation of minerals in South Africa and, more specifically, the current royalty regime. This stems largely from the calls for replacing the regime with a mineral resource rent tax – similar to that in Australia. There are several reasons that this may not be necessary in the South African context. The history behind the introduction of a resource rent tax in Australia does not bear resemblance to South Africa's story. The combination of problems – associated with both their federal system and *volume*-based royalties – led to the introduction of the MRRT. South Africa's royalty regime was designed very carefully, taking many different elements into account, and does not face the same challenges that pre-empted the MRRT in Australia.

While both rent- and profit-based taxes stand up well in terms of the assessment criteria for (resource-related) fiscal instruments, South Africa's royalty regime is preferred to a resource rent tax in many aspects. In terms of neutrality, a rent-based tax may be marginally preferred (by investors) over the current royalty regime, given that there is a minimum royalty payment due (0.5 per cent of adjusted gross sales). However, this is a very low 'floor' and still provides relief for marginal mines and mines in general in times of subdued profits (as a result of low commodity prices and high costs, etc.). The minimum payment also guarantees that government always collects some revenue – even in downswings. The Australian MRRT failed to collect any revenue in the first quarter of its implementation – raising the issue of volatility that is linked to a rent-based mechanism. The royalty in its current form is more akin to revenue stability stemming from a more stable and predictable tax base (revenues are buoyant and predictable over the commodity cycle). Over and above this, mineral royalties generate revenue from the very start of production, whereas rent-based taxes only generate revenue after a certain level of investor return has been surpassed.

Hence, while royalties may only recover a portion of mining rents when mining profits are high and tax mining operations where no economic rent is present, the regime in South Africa is well-crafted to allow enough flexibility so as not to unduly disadvantage investors or government, while also ensuring that revenues collected are not overly volatile. In terms of administrative complexity and compliance burden, both rent- and profit-based taxes rank below volume-based royalties; however determining an appropriate tax base for a resource rent tax is seen as most cumbersome as it involves deciding on what a normal rate of return would be.

Overall, the South African royalty regime is considered to be robust and, if it is necessary to increase the government share of revenues, it may be more appropriate to review and adjust the royalty

rates. This will also allow for more certainty and ease of compliance within the mining fraternity, given the familiarity with the current formulae.

Lastly, it is important to reiterate that the taxation of the mining sector does not exist in a vacuum. Any future decisions need to take full cognisance of other requirements that the industry faces, whether by regulation or otherwise. Multinational companies take all such factors into account when deciding on where to invest. With South Africa's dwindling share of the global exploration budget (falling from 8 per cent in 2004 to 0.5 per cent in 2012) and the desire to attract foreign direct investment, it is imperative that any calls for policy review are carefully scrutinised.



## Appendix A

### Mining in selected countries

#### 1 Australia<sup>22</sup>

Australia is endowed with some of the world's largest and most valuable deposits of iron ore and coal. These commodities constitute a large proportion of Australia's mine production and mineral exports. On 2 November 2011, the Australian government introduced the minerals resource rent tax (MRRT), which became effective 1 July 2012. The MRRT is a tax on the economic rents miners make from taxable resources after they are extracted from the ground but before they undergo any significant processing or value add. 'Economic rent' is the return in excess of what is needed to attract and retain factors of production in the production process. The MRRT applies to certain profits from iron ore and coal extracted in the country, as well as profits from gas extracted as a necessary incident of coal mining and gas produced by the *in situ* combustion of coal. The affected minerals represent three quarters of the value of Australian exports and resource operating profits and account for an even greater share of rents in the mining industry.

The MRRT is project-based, so a liability is worked out separately for each project the miner has at the end of each MRRT year. The total MRRT liability is the aggregate of those project liabilities. Where profits are made from the sale of taxable resources, or would have been made if the resources had been sold instead of being exported or used, MRRT may be payable.

The key points about the MRRT are as follows:

- The tax is imposed on a miner's mining profit, less its MRRT allowances, at a rate of 22.5 per cent (that is, at a nominal rate of 30 per cent, less a one-quarter extraction allowance to recognise the miner's employment of specialist skills).
- A project's mining profit is its mining revenue less its mining expenditure. If the expenditure exceeds the revenue, the project has a mining loss. Mining revenue is, in general, the part of what the miner sells its taxable resources for that is attributable to the resources in the condition and location they were in just after extraction (the 'valuation point'). Mining revenue also includes recoupments of some amounts that have previously been allowed as mining expenditure.
- Mining expenditure is the cost a miner incurs in bringing the taxable resources to the valuation point.
- Mining allowances reduce each project's mining profit. The most significant of the allowances is for mining royalties the miner pays to the States and Territories. It ensures that the royalties and the MRRT do not double tax the mining profit.
- In the early years of the MRRT, the project's starting base provides another important allowance. The starting base is an amount to recognise the value of investments the miner has made before the MRRT.
- Other allowances include losses the project made in earlier years and losses transferred from the miner's other projects (or from the projects of some associated entities).

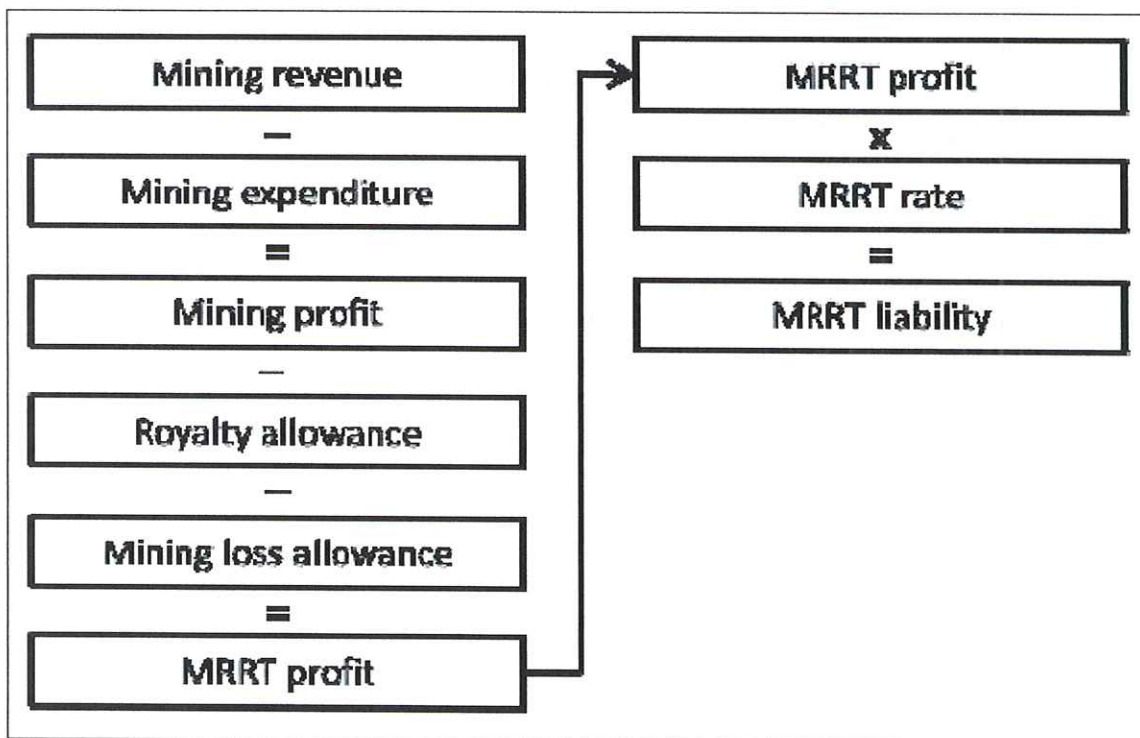
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<sup>22</sup>The Parliament of the Commonwealth of Australia. Explanatory Memorandum on the Minerals Resource Rent Tax Bill 2011

- If a miner’s total mining profit from all its projects comes to less than \$50 million in a year, there is a low-profit offset that reduces the miner’s liability for MRRT to nil. The offset phases out for mining profits totalling more than \$50 million.
- Carried forward MRRT losses are to be indexed at the allowance rate equal to the long-term government bond rate plus 7 percent.
- This measure is expected to impose significant compliance costs on taxpayers in the iron ore and coal sectors (approximately 320 taxpayers). In the first year of the MRRT’s operation, taxpayers will need to value their starting base and modify their accounting procedures. On going compliance costs will reduce over the medium to long term.

Figure 1 illustrates the calculation of the MRRT liability.

Figure 7: Calculation of the MRRT liability



## 2 Peru

Peru has evolved into the third preferred destination for mining exploration investment in the world and the leading destination in South America. The dynamic environment surrounding the mining industry is currently driven by the transition to a new central government, changes in mining taxes, and an increased focus on the social and environmental impacts.

Peru has a long mining tradition, with some of the top metals being copper, gold, silver, zinc, tin and lead. It is estimated that mining investments in Peru were up 50 per cent in 2011 compared to the previous year. The country expects the mining sector to receive more than US\$50 billion in investment over the next ten years to develop new reserves and mining infrastructure. Table 1 shows Peru’s mining production by main product from 2007 to 2011.



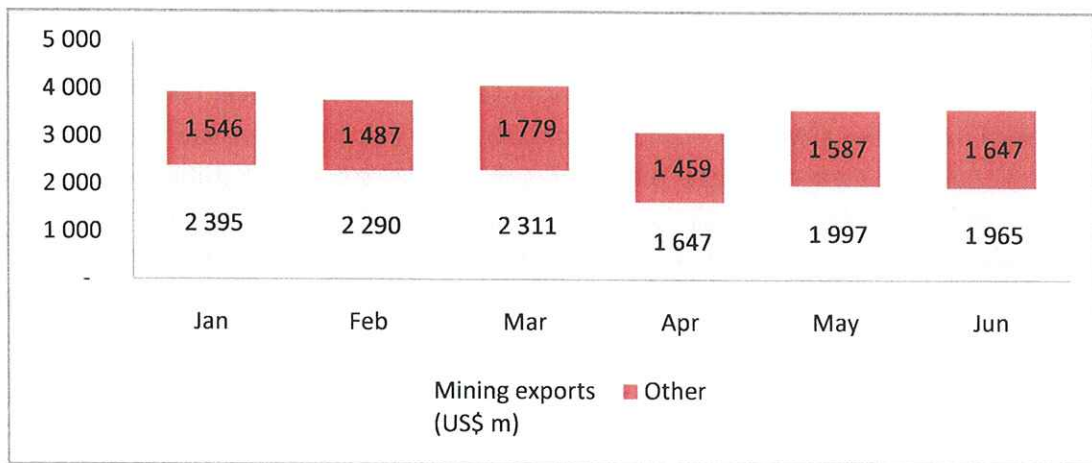
**Table 8: Mining production by main product, 2007 – 2011**

Metals	Unit of Measure	Annual				
		2007	2008	2009	2010	2011
Copper	metric tons	1,190,274	1,267,867	1,276,249	1,247,126	1,235,198
	y-on-y %		6.5%	0.7%	-2.3%	-1.0%
Gold	kg	170,236	179,870	183,995	163,400	164,013
	y-on-y %		5.7%	2.3%	-11.2%	0.4%
Zinc	metric tons	1,444,361	1,602,597	1,512,931	1,470,510	1,255,899
	y-on-y %		11.0%	-5.6%	-2.8%	-14.6%
Silver	kg	3,501,462	3,685,931	3,922,708	3,637,412	3,414,010
	y-on-y %		5.3%	6.4%	-7.3%	-6.1%
Lead	metric tons	329,165	345,109	302,459	261,902	230,019
	y-on-y %		4.8%	-12.4%	-13.4%	-12.2%
Iron	metric tons	5,185,494	5,243,521	4,489,676	6,139,610	7,123,443
	y-on-y %		1.1%	-14.4%	36.7%	16.0%
Tin	metric tons	39,019	39,037	37,503	33,848	28,882
	y-on-y %		0.0%	-3.9%	-9.7%	-14.7%
Molybdenum	metric tons	16,787	16,721	12,297	16,963	19,141
	y-on-y %		-0.4%	-26.5%	37.9%	12.8%
Tungsten	metric tons	-	-	634	716	546
	y-on-y %				12.9%	-23.7%

Source: Ministry of Energy and Mines<sup>23</sup>

Figure 2 illustrates the importance that minerals play as a share of Peru's exports – accounting for more than 50 per cent in the first half of 2012.

**Figure 8: Mining as a share of all exports (2012)**

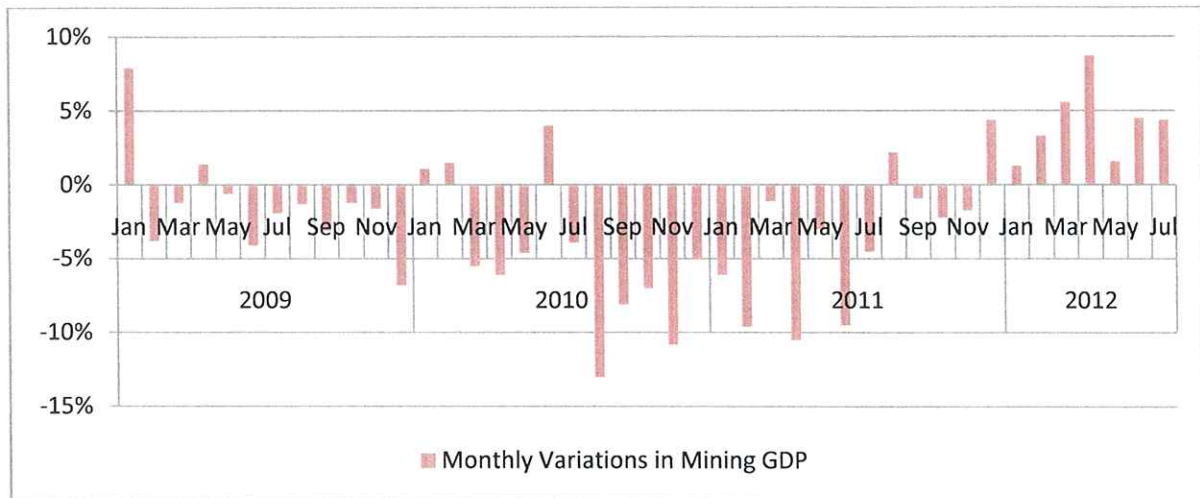


Source: Ministry of Energy and Mines

Figure 3 shows the monthly fluctuations in the contribution of the mining sector to Peru's GDP from 2009 to 2012.

<sup>23</sup> Available: <http://www.minem.gob.pe/descripcion.php?idSector=1&idTitular=5044>

Figure 9: Monthly Variations in Mining GDP



Source: Ministry of Energy and Mines<sup>24</sup>, Peru

Politically, there appears to be a move towards populism and resource nationalism. Current Peruvian president, Ollanta Humala, has illustrated his commitment to mining policy stability with recent Cabinet changes to reinforce this view. The protection of mining investments is a main priority for the government, but political risks may escalate with next electoral cycle in 2016 and whether the Humala's popularity declines further. Social protests are quite prevalent in Peru and, while most protests will remain unresolved, it's unlikely the protests will develop into a major national movement against the government or foreign investors. While the Humala government has taken a "tough" stance against protestors, planned investment delays are at times unavoidable.

In Peru, taxes are paid quarterly versus annually, which allows the government to capitalize on rising metal prices. When it comes to royalties, The Mining Royalty, the Special Mining Tax (SMT) and the Special Mining Contribution (SMC) are economic considerations paid to the Peruvian Government for the exploitation of mineral resources. The SMC is only applicable to mining companies with projects with Tax Stability Agreements in force. These companies will voluntarily enter into agreements with the Peruvian Government for the purpose for pay this contribution. The new royalty and tax regime was developed through a joint task force of Government, industry association and mining companies.

Towards the end of 2011, Peru adopted a law revising the tax treatment of the country's mining industry<sup>25</sup>, altering the basis of taxation and increasing the sector's contribution to government. Miners will now pay royalties of between 1 per cent and 12 per cent of their operating profits and a

<sup>24</sup>Statistical Bulletin of Mining, September 2012. Available: <http://www.minem.gob.pe/publicacionesSector.php?idSector=1>

<sup>25</sup>Baker.Sep. 27, 2011. Peruvian Mining Tax Overhaul approved. Available: [http://www.tax-news.com/news/Peruvian Mining Tax Overhaul Approved 51473.html#](http://www.tax-news.com/news/Peruvian_Mining_Tax_Overhaul_Approved_51473.html#); Sep 28, 2011. Peru's Humala signs bills to raise mining taxes. Available: <http://www.reuters.com/article/2011/09/28/peru-mining-taxes-idUSS1E78R1YH20110928>



windfall profits tax of 2 per cent to 8.4 per cent (dependent on profit margins) of their net profits. They currently pay royalties of 1 per cent to 3 per cent on net sales. Companies that have entered into tax stability agreements, such as Xstrata PLC, BHP Billiton, and Barrick Gold Corp, which shield them from future tax changes, must now pay a 'special contribution' tax of between 4 per cent and 13.12 per cent of profits.

The government plans to use the new source of funds, estimated at US\$ 1 billion annually at current metals prices, to build roads and schools to fight rural poverty. This estimate is in addition to the income tax that the companies pay, which the Mining Society said was valued at US\$ 12.6 billion in the 2006 to 2010 period. It says the taxes will not affect the vital sector's competitiveness. "These resources will be used primarily to fund infrastructure in the poorest parts of the country as a way to bring social inclusion," said Humala, who took office in July promising to spread the benefits of rapid economic growth.

Though miners agreed to the rates, they have warned that further increases could affect the sector's competitiveness in the world's No. 2 copper and silver producer.

### **3 Ghana**

Mining accounts for 5 per cent of the Ghana's GDP and minerals make up 37 per cent of total exports, of which gold contributes over 90 per cent to the total mineral exports. The main focus of Ghana's mining and minerals development industry thus remains focused on gold. Ghana is Africa's second largest gold producer, producing 2.14 million ounces in 2005. Gold production rose 64 percent in the first quarter of 2012 as higher prices led companies to boost operations. Output in the first quarter rose to 1.53 million ounces<sup>26</sup>. Ghana is also a major producer of bauxite, manganese and diamonds.

All minerals are owned by the state and exclusive rights to mine are granted by the Ministry of Mines and Energy. Before applying for the mineral right, the applicant must identify the area and the mineral to apply for. The applicant must also identify which right he intends to apply for – reconnaissance (12 months), prospecting (up to 3 years), mining lease (up to 30 years), restricted reconnaissance or prospecting license for industrial minerals (12 months and 3 years respectively) or restricted mining lease (up to 15 years). A search is subsequently done at the Minerals Commission to find out whether the area to be applied for is free or encumbered. An official search report is issued in this respect.

The government of Ghana introduced the New Minerals and Mining Act 703, 2006, which sought to revise the old mining law to conform to the trends and development in the industry. One of the key changes made to the act was the introduction of a fixed royalty rate of 5 per cent which overrides the earlier rate of a range of 3-6 per cent. Currently, persons engaged in mineral (other than petroleum and water) extraction are required to pay royalties to the Ghana Revenue Authority (GRA) within 30 days after the expiration of every quarter. In 2011, Government proposed that quarterly payments of royalties be made monthly.

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<sup>26</sup> Bloomberg, Jul. 25, 2012. <http://www.bloomberg.com/news/2012-07-25/ghana-s-first-quarter-gold-production-rises-64-on-high-prices.html>

Payment of mineral royalties on a quarterly basis has existed for over 20 years. The proposed changes seek to address Government’s concern about revenue leakage from fluctuating exchange rates over the quarterly period. Government’s proposals represent a major change in the tax payment pattern in the mining industry and will have a significant impact on the cash-flows of entities within the industry<sup>27</sup>.

### **Mining fiscal regime**

- The corporate tax rate in Ghana is 25%;
- An additional profit tax of 25% proposed under 1985 law was repealed in 2000;
- Withholding tax on management and technical service fee;
- Royalty rate is 5 per cent;
- Depreciation allowance of 80 per cent in year one and 50 per cent in the subsequent year will no longer apply;
- From next year, the depreciation allowance will be 20 per cent per annum (Act No. 839 of 2012).

Mining companies make significant contributions to the Government of Ghana’s tax revenue. The total tax contribution made by the nine mining companies constituted 9.6 per cent of government’s total tax revenue for 2010. Mining companies pay many other taxes in addition to corporate income tax. Corporate income taxes are only 26 per cent of total taxes and contributions borne by the mining entities. An additional 37.5 per cent of specific mining taxes are borne by the mining companies.

On average, participants in the study<sup>28</sup> paid an amount equivalent of 13 per cent of their turnover as contributions to government. This ratio measures the taxes paid and collected in relation to the size of the mining entity as measured by turnover. The Total Tax Rate which measures the cost of all taxes borne as a percentage of profits before all taxes by the mining companies is at an average of 31 per cent for participants.

**Table 9: Contribution of mining companies in Ghana (June 2012)<sup>29</sup>**

<b>Taxes Borne</b>	<b>US\$</b>
Profit Taxes	121,703,884
People taxes	19,257,037
Product taxes	21,953,808
Property taxes	365,787
Taxes on mining/User Fees	113,024,752

<sup>27</sup>PriceWaterhouseCoopers (PWC), 2011. Budget Highlights.

<sup>28</sup>PriceWaterhouseCoopers(PWC) and Ghana Chamber of mines, 2012.Total Tax Contribution study on the mining sector. Available from: <http://www.pwc.com/gh>.

<sup>29</sup>PriceWaterhouseCoopers(PWC) and Ghana Chamber of mines, 2012.Total Tax Contribution study on the mining sector. Available from: <http://www.pwc.com/gh>



Total Taxes Borne	276,305,268
Other Contributions	25,487,196
<b>Taxes and contributions borne</b>	<b>301,792,464</b>
<b>Taxes Collected</b>	
Profit taxes (taxes withheld at source from royalties and other payments)	28,045,073
People taxes	42,547,323
Product taxes collected	21,765,687
<b>Total Taxes Collected</b>	<b>92,358,084</b>
<b>Total Tax Contribution</b>	<b>394,150,548</b>

Total mineral revenue rose significantly from US\$2.93billion in 2009 to US\$3.73billion in 2010, representing an increase of 27 percent – mainly on account of the healthy price of gold, although other minerals also recorded price increases during the period. In 2010, mining companies returned about 68 percent of the US\$3.7billion mineral revenue to the country through the Bank of Ghana (BoG) and private commercial banks. An average of 20 percent was repatriated to the country through BoG and the remaining 48 percent through private banks. This ensured that Ghana received considerable foreign exchange from the mining sector to support the nation’s foreign currency transactions.

Last year, the industry spent US\$ 865million, representing about 27 percent of its total funds to procure inputs locally, including diesel and power. In addition, the mining sub-sector contributed about US\$ 275million to the GRA, representing 21 percent of total GRA collections in 2010. The sector also paid US\$128million in corporate tax to the GRA, representing 24 percent of the total company tax collected in 2010.

### ***Mining employment***

Mining companies are significant employers that pay taxes such as mandatory social security contributions on behalf of their employees. They also serve as withholding tax agents on the employment income paid to employees. In total, the employment taxes borne and collected by mining companies on behalf of employees averaged US\$ 4 200 for each employee. The average employment taxes alone are higher than the per capita income of Ghana which stands at US\$ 1 370 (2010 GDP per capita). Taxes borne per employee are computed on an average per individual participant company.

### ***Corporate social responsibility***

Mines make contributions wide ranging causes which include school projects, alternative livelihood initiatives-such as palm plantations, and health posts. These other contributions by the mining companies make up 15 per cent of all the other taxes borne (i.e. a summation of all taxes including royalties, corporate tax, customs duty, Employer’s SSF and business rates). This voluntary other

contribution is equivalent to 32 per cent of the total corporate tax payments made by the survey participants<sup>30</sup>.

### **Government demands**

Ernst & Young analyses business risks annually and reported that the number-one risk for miners in 2011-2012 is resource nationalization (number four in 2010), which involves countries attempting to get more money from their minerals. The report states that resource nationalisation takes many forms, including increased royalties, taxes and mandatory participation whereby governments mandate the involvement of certain stakeholders. The mining and metals sector rebounded quickly from the global financial crisis, making it an early target to restore Treasury conditions, the report said. From 2011, a growing amount of legislation has been implemented and is being considered that attempts to extract more profits from the minerals that miners are extracting. This is a trend that Ernst & Young predicts is only likely to increase. Mining sector operators have proposed an intensive dialogue with government for possible future negotiations regarding mining tax reforms.

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<sup>30</sup>PWC and Ghana Chamber of mines, 2012. Total Tax Contribution study on the mining sector. Available from: <http://www.pwc.com/gh>