State of Mining in Africa
Striking a balance
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Introduction

Mining companies around the world are looking for growth opportunities and Africa, with its wealth of minerals, has become a choice for many with over 1,800 mining projects in various stages of development or operation. Miners, investors and governments strive to overcome a host of challenges to become successful in their endeavours. The objective of this paper is to take stock of the key themes which are surfacing across the continent.

In mining, when we consider what success looks like, it is our experience that five key factors set any mining project or operation up for a successful outcome. These are:

• A good mineral deposit
• The deposit is located in an economic region with good governance and consistent application of civil and tax law
• Infrastructure in the form of roads, rail, ports, electricity and communications to support the mine should be available and functioning
• A well understood inbound and outbound supply chain supporting the mine and points to market
• A competent and cohesive team which safely works together.
Mining developments, whether greenfield or brownfield, are not easy and require discerning investors and mining executives to overcome unique barriers that prevent the above five key factors from becoming a constant within the mining project or operation.

Looking at the current mining investment, development and production environment in Africa against these factors, Deloitte’s research shows two main factors continue to have lingering barriers which lead the less agile and adventurous investors away from the continent. These are governance and infrastructure.

We believe what is driving this is governments of resource rich countries across the continent are seeking to strike the balance of delivering the value of the mineral back to its people, while at the same time, create an operating environment that is attractive to investors and thus setting the country up for further growth. Getting policy set right in a dynamic political and economic environment where commodity prices are on the move is proving to be a tricky balancing act.

Drawing from last year’s research, the Deloitte global Tracking the Trends in Mining 2013 notes that “mining companies understand the need to meet local government and community requirements when operating mine sites. Those requirements, however, have escalated considerably in recent years. Today corporate social responsibility extends well beyond meeting the minimum legal requirements associated with conducting an environmental impact assessment. It involves understanding shifting community and government expectation, addressing the demands of NGOs and relevant stakeholder groups, and committing to a higher level of transparency and operational sustainability”. This is acutely evident in Africa for example where Zambia’s current government has begun to introduce measures which are meant to transparently deliver more to Zambia and Zambians. The question is - how could this impact existing agreements with mining companies in Zambia in terms of the economic viability of any particular project or operation.

The State of Mining in Africa - Striking a balance, is a consolidated point of view of the Deloitte mining leaders across Africa backed by research. We have taken a snapshot view of several mining regions across Africa and share some of what is happening with regard to policy, infrastructure and funding. It is a follow-on from the State of mining in South Africa: Opportunity lost or light at the end of the tunnel report released in February 2013. The Deloitte Africa mining leader’s views are shaped from their experiences in the relevant regions as well as data taken from key business and industry reports.
The policy and regulation balance

A country’s regulatory framework is a major consideration for mining companies looking for viable investment opportunities. Mining investments benefit greatly from efficient, consistent, stable and understandable regulatory frameworks. The benefit comes from knowing assumptions made in terms of ownership, tenure, royalties, tax and environmental law during development are ‘bankable’ thus allowing improved allocation of capital and better forecasting of potential returns for investors. To give a feel for how the countries are striking the balance, in this section we take a look at how a selection of Central & East African countries treat their mining tax royalties over a five year period as well as how countries across the continent are addressing their policy around mining.
Table 1 below is a review of the mining royalty tax rates for the Democratic Republic of Congo (DRC), Kenya, Mozambique, Tanzania, Zambia and Zimbabwe. It shows that three of the six countries have increased mining royalty rates on selected minerals over the years, but 2014 rates are showing to be consistent with 2013.

### Table 1: Mining Royalty Tax Rates

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<td>Semi-precious stones</td>
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<td>6</td>
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<td>Diamonds</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

* 3 For small scale miners
** Of gross sales revenue
Still finding a balance
From these two data sets, though royalties appear to have stabilized, it is easy to observe, ownership and mineral policy laws are still in flux. When considering mining projects and operations, these factors have a direct impact to the bottom line for both investors and government. If we reflect on our five success factors described earlier in this paper, this variability in the area of governance, policy and law places greater reliance on the other four success factors with the quality of the deposit having the most economic influence. Thus, investors and countries with higher quality resources most likely stand the best chance of weathering this time of change.
Investment in infrastructure as an opportunity for growth

Investment in infrastructure as a major theme in Africa
Suitable infrastructure in terms of roads, rail, ports, electricity and communications is the second area which we identified. Our research has shown there are many mine investments which hinge upon the upgrade or establishment of entirely new roads, rail, port or electrical infrastructure. Looking at power supply as an example, many countries in our data set are currently producing as little as 50% of the requirement needed for development of the next 3-5 years envisaged development and production.

There is clear evidence, however, of this situation changing over the next several years. According to our research, there are approximately 330 new infrastructure construction funded projects to the value of $ USD 223bn. It is evident that many African countries have already started on the journey of rehabilitating ageing infrastructure and developing the required roads, rails, ports and power sources to keep up with and facilitate growth.

Chart 1 below outlines the split of projects by type outlining a clear focus on Energy/Power and Transport.

Interestingly enough, 48% of the planned investment is not in normally recognized mineral resource focused economies (Chart 2). This indicates there is an economic draw coming from other parts of the supply chain. Possibly a good sign for sustainable GDP growth. However, as energy and transport infrastructure are key to successful mining operations, the question is should more of this investment be going to resource-rich countries to speed-up the asset realization, and what can mining companies and government do to support this investment?
Policy, law and ownership across Africa

For a view on Policy, law and ownership, we have drawn on a broader set of countries and provide a snapshot of current thinking from a government perspective. It provides a snapshot view of some of the current practices or policy changes. Of the list of 11 countries, we provide examples where 9 of the countries are currently taking some level of action to alter current mining policy or law.

**Burkina Faso**
- 2003 Mining code amendments are expected eminently
- State to benefit from an automatic 10% stake in a company

**Ivory Coast**
- Companies are exempt from taxes on business profits, which represents 25% of the result, for the first 5 years
- Reduced the size of exploration permits from 400km to 100km in 2013

**Ghana**
- It takes five days to register a new company & one month to process a mining permit
- State to benefit from an automatic 10% stake in the company
- Mining companies need to lease the land from Traditional Authorities first and then also obtain the license from the Minerals Commission before starting operations

**Namibia**
- It takes six weeks to register a new company
- Government has declared a list of strategic minerals in which the state-owned mining company, Epangelo (Pty) Ltd, must have a share of any investments or mineral licences issued in these strategic minerals

**Zimbabwe**
- Zimbabwe is planning to introduce a new mining law, that amongst a number of changes includes a ‘use it or lose it’ policy on exploration licenses as well as rules that will ensure some level of mineral beneficiation before export.
- Any mineral asset in development or production to be 51% owned by indigenous Zimbabweans
Tanzania

Gemstone mining licences should only be issued to Tanzanians. However, in certain cases licenses can be issued to foreign owned mining companies but only where Tanzanians have at least 50% ownership.

Minister for Energy and Minerals announced an increase in fees for application of various licences, including annual rents, transfer charges and renewal fees. Some of the amounts have increased by over 250%.

Democratic Republic of Congo

Upon award of an exploitation permit, the holder automatically transfers 5% of the shares in the registered capital of the company to the state.

From 2014 all businesses registered in the DRC will have to adhere to the requirements of OHADA (Organisation pour l’Harmonisation en Afrique du Droit des Affaires) or the “Organisation for the Harmonisation of Business Law in Africa”.

Kenya

At least 35% of shareholders in mining companies must be Kenyan nationals.

Mining secretary through his position as the chairman of the Southern and Eastern Africa Mineral Centre (SEAMIC) is pushing for reforms that will see East African countries embrace one legal framework and a standard approach to paying out royalties.

Uganda

There is a proposal to review land regulations so as to provide for a quick compulsory acquisition of land for all government projects.

Minister of Energy has plans to review the mining law and regulations by 2015.

Tanzania

Minister for Energy and Minerals announced an increase in fees for application of various licences, including annual rents, transfer charges and renewal fees. Some of the amounts have increased by over 250%.

Mozambique

There must be between 5% and 20% local shareholders in every major concession or big mining project.

Foreign companies need to buy 30% of what they purchase locally.

Zambia

Taken the final step in privatization by putting ZCCM on the auction block as a holding company for the countries’ mining investments.

In the next two years, Zambia plans to implement an improved capability in the monitoring and reporting of mineral production in effort to assure tax structures are returning as planned.

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Energy – power supply struggling to keep up

The Energy/Power sector attracting the most funding and number of projects in Africa sends a good general signal to the market there is investment, although there is a shortlist of major power projects in Africa which will impact major mining regions, e.g. DRC (Grand Inga), Zambia (Kariba North Bank & Kafue Gorge) and Zimbabwe (Batoka), many will only go live in the next two to five years. For companies looking to invest or start operations now, there is a clear gap for which mining companies need to plan around.

**Investment split between resource-rich countries & the rest of Africa**

- 52% Total Energy and Transport investment of resource rich countries
- 48% Rest of Africa Energy and Transport infrastructure investment

*Energy – power supply struggling to keep up*

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Zimbabwe’s electricity supply constraints have been felt by all sectors of the economy and the mining industry in particular. There are plans to revamp the northern Kariba hydro-power station and the Hwange thermal power station. Currently rehabilitation is in progress at the major power stations under agency agreements involving Government.

There are plans to:

- **Extension of the Kariba North bank** to add 360MW by the end of 2014
- **Development of 750MW capacity from the Kafue Gorge lower power station** by the end of 2019
- **Completion of the 120MW Itezhi-Tezhi power station** by 2015
- **Grand Inga** in the DRC is planned to be the world’s largest hydroelectric project when completed and will release 40,000 MW of electricity per annum. While the annual demand is around 2,200 MW, the power generated would be double the capacity of the largest dam in the world, the Three Gorges Dam in China.

Power is also a big issue for Zambia. Currently power supply is 1.6GW and the country runs at a power deficit with costs continually escalating. There are several projects underway to address this with over 1.2GW of electricity in place by 2019.

- **Extension of the Kariba North bank** to add 360MW by the end of 2014
- **Development of 750MW capacity from the Kafue Gorge lower power station** by the end of 2019
- **Completion of the 120MW Itezhi-Tezhi power station** by 2015

**Snapshot of Power Drivers**
Transport – There is light at the end of the tunnel
There are plans in place to rejuvenate existing railways serving Tanzania, Kenya and Uganda. The governments are working together to upgrade their existing railways and extend them; initially to Rwanda and Burundi and eventually to South Sudan, Ethiopia and beyond. This project is being managed by the infrastructure Ministers from participating East African Community countries in association with transport consultation firm CPCS Transcom.

Namibia continues to invest in the development of their two ports Walvis Bay and Luderitz. Walvis Bay remains the main import and export harbour. Significant investment has been planned to improve the facilities of the harbour and to improve the competitiveness to the ship repair industry supporting the developing oil exploration industry and other offshore mining activities. Luderitz is also developing as an export destination for the country’s zinc and lead exports, despite the incompletion of the TransNamib railway line from Aus to Luderitz, which is due for completion in 2014.

The National Railways of Zimbabwe, the sole rail operator is operating at between 30% – 50% of its capacity because of a myriad of challenges. Goods transport has declined, from 18 million tons in 1998 to 2 million tons in 2010. This has significantly raised the cost of transporting ore. Amongst other things, this has dropped Zimbabwe on the ease of doing business ranking.
The Zambian road network has not kept up with the country’s growth in terms of being able to handle the traffic and weight of what is being transported. The country now has several planned programmes of road infrastructure development such as ‘Link Zambia 8000’, ‘Pave Zambia 2000’ and ‘The Lusaka 4000’ to be implemented over the next 2 to 5 years. A much needed investment as exemplified by the need up in the copper belt. Currently, the road between Solwezi and Chingola (approximately 140 km), carries concentrate from Lumwana and Kinshansi mines to the Chingola smelters. This flow of product represents more than 8% of the country’s total tax revenue. The road is quickly eroding, full of very large potholes, seriously restricts normal flow of concentrate traffic. The improved roads will speed travel and reduce cost in terms of capital requirements and operating expenditure.

Clearly there is significant investment flowing into Africa to boost the necessary infrastructure development and as infrastructure continues to show growth, so too will the mining sector. Looking at the development horizon, however, the window for most new power and transport infrastructure to come on line is 2 to 5 years with some of the developments not fully funded. This introduces yet another element of variability into the mining investment system.
Summary

Investors, miners and governments are still seeking to strike a balance. Held against our five success factors, it is clear the areas of governance & policy and infrastructure are in a period of flux with a potential two to three year maturity lead time for the planned projects and initiatives to settle into some level of consistent delivery. During this dynamic time, investors, miners and governments will be forced together in an effort to achieve mutually successful outcomes. As the outcome crystallises in this ‘crucible’, the potential for disruption and lost energy exists. We suggest investors, miners and government continue to seek this incredible potential and aim to strike the right balance which will attract investors to realize the opportunities sought. In this period we still see the knowledgeable, bold and agile will continue to succeed delivering huge value both at national and investor level.

Looking forward five-to-ten years on a country basis, once policy and infrastructure development has been established and stabilized, it will be interesting to see who will be the winners in developing their mineral resources in terms of optimising revenue and building wealth for the country. Our bet, all things equal on the quality of reserves, governance, infrastructure, supply-chain and skills set side, the most successful will have been brilliant marketers of their mineral assets.

Thinking on the investor side, in our next State of Mining in Africa piece we look at who is funding the infrastructure investments in Africa, is the level of investment enough and what government and companies can do to speed up mineral asset realization.
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Below is a list of resources used to research this thought leadership

• Fraser Institute Survey of Mining companies 2012-2013
• http://www.internationalrivers.org/resources/grand-inga-hydroelectric-project-an-overview-3356
• http://eiti.org/eiti
• http://www.ifr1000.com/LegislationGuide/803/Legislative-updates.html
• Business Monitor International
  - Africa Country Mining Industry Reports Q1 2014
  - Africa Infrastructure Reports Q1 2014
• Research Channel
  - African Mining; Projects in Progress
  - Road and Rail
• Metals Economics Groups – Mine Search 2013
• Mining Journal
• Mining Weekly
• Infomine
• Polity
• The South African Tax Guide
• Business Day Live
• Mining Review
• Financial Mail
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