



Southern African Institute of Mining and Metallurgy

**The Rise of Resource Nationalism:
A Resurgence of State Control in an Era of Free Markets
Or the Legitimate Search for a New Equilibrium?**

A Study to Inform Multi-stakeholder Dialogue on State-Participation in Mining

Compiled by Michael Solomon
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*The Rise of Resource Nationalism: Resurgence of State Control in an Era of Free Markets
Or the Legitimate Search for a New Equilibrium?*



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LIST OF ACRONYMS

ABET:	Adult Basic Education Training
AEMFC:	African Exploration and Mining Finance Corporation
ALMP:	Active Labour Market Policies
ANC:	African National Congress
ANC MEG:	ANC Minerals and Energy Group
ANCYL:	ANC Youth League
AVR:	Ad valorem royalty
BEE:	Black Economic Empowerment
BBBEE:	Broad-based Black Economic Empowerment
BBSEE:	Broad-based Socio-economic Empowerment
BEE:	Black Economic Empowerment
BIT:	Bilateral Investment Treaty
BRIC:	Brazil, Russia, India and China
BRICS	Brazil, Russia, India, China and South Africa
CC:	Central Committee (NUM)
CGS:	South Africa Council of Geoscience
CIF:	China International Fund
CITT:	Coal Industry Task Team
Cosatu:	Congress of South African Trade Unions
CSI:	Corporate Social Investment
CSIR:	Council for Scientific and Industrial Research
CMEA:	Council for Mutual Economic Assistance
CNMC:	China Nonferrous Metal Mining
DBSA:	Development Bank of Southern Africa
DEP:	Department of Economic Planning
DFI:	Development Finance Institutions
DME:	Department of Minerals and Energy
DMR:	Department of Mineral Resources
DRC:	Democratic Republic of the Congo
DST:	Department of Science and Technology
DTI:	Department of Trade and Industry
EBIT:	Earnings Before Interest and Taxation
EDD:	Economic Development Department
EEA:	Europe Economic Area
EITI:	Extractive Industries Transparency Initiative
EIU:	Economist Intelligence Unit
EMPR:	Environmental Management Programme Report
Eskom:	Electricity Supply Commission
ESOP:	Employee Share Ownership Plan
ETC:	Economic Transformation Committee (South Africa)
EU:	European Union
EWRM:	Enterprise Wide Risk Management
FDI:	Foreign Direct Investment
FET:	Fair and Equal Treatment
GAC:	Global Agenda Council



GCC:	Government Certificate of Competency
GDP:	Growth Domestic Product
GFCF:	Gross Fixed Capital Formation
GNU:	Government of National Unity (Zimbabwe)
HDSA:	Historically Disadvantaged South African
HRD:	Human Resource Development
ICCM:	International Council on Mining and Metals
IDC:	Industrial Development Corporation
IDZ:	Industrial Development Zone
ILO:	International Labour Organisation
IP:	Indigenous Peoples
IPO:	Intellectual Property Offering
IPP:	Import Parity Pricing
IRR:	Internal Rate of Return
ISCOR:	Iron and Steel Corporation
JSE:	Johannesburg Stock Exchange
JV:	Joint Venture
KZN:	KwaZulu-Natal
LED:	Local Economic Development
LKAB:	Luossavaara-Kiirunavaara Aktiebolag
MFN:	Most Favoured Nation
MEPC:	Minerals and Energy Policy Centre
MERG:	Macro-economic Research Group
MHSA:	Mine Health and Safety Act 29 of 1996
MIGDETT:	Mining Industry Growth Development and Employment Task Team
MQA:	Mining Qualifications Authority (South Africa)
MPRDA:	Mineral and Petroleum Resources Development Act
MRRT:	Minerals Resource Rent Tax
MWU:	Mineworkers Union
NAMF:	New Africa Mining Fund
NDC:	Namdeb Diamond Corporation
NDP:	National Development Plan
NDRC:	National Development and Reform Commission
NEC:	National Executive Committee (ANC)
NECSA:	Nuclear Energy Council of South Africa
NEF:	National Empowerment Forum
NEMA:	Environmental Management Act 107 of 1998
NGC:	National General Council (NUM)
NGO:	Non-Governmental Organisation
NGP:	New Growth Path
NPV:	Net Present Value
NRC:	Native Recruiting Organisation
NSC:	National Steering Committee of Service Providers to the Small-scale Mining Sector
NUM:	National Union of Mineworkers
NQF:	National Qualifications Framework
OECD:	Organisation for Economic Co-operation and Development
PACI:	World Economic Forum Partnership against Corruption Initiative

PDAC:	Canadian Prospectors and Developers Association
PDI:	Previously Disadvantaged Individual
PIC:	Public Investment Corporation
PPP:	Public Private Partnership
PPs:	State-equity Participation with Private Sector
RDI:	Research, Development and Innovation Research and Development Institutions
RDP:	Reconstruction and Development Programme
RMDI:	Responsible Mining Development Initiative
RSPT:	Resources Super Profits Tax
S&P:	Standard and Poor
SACP:	South African Communist Party
SADC:	Southern African Development Community
SAI:	State Allocated Investment
SAIMM:	Southern African Institute of Mining and Metallurgy
SAMDA:	South African Mining Development Association
SAPPF:	South African Preferential Procurement Forum
SAR&H:	South African Railways and Harbours
SARS:	South African Revenue Services
SIC:	Standard Industrial Classification
SIMS:	State Intervention in the Minerals Sector (report)
SLP:	Social and Labour Plan
SMME:	Small, Medium and Micro Enterprises
SNA	System of National Accounts
SNIM:	Société Nationale Industrielle et Minière
SOE	State Owned Enterprise
SPV:	Special Purpose Vehicle
SWF:	Sovereign Wealth Fund
UASA:	United Association of South Africa
UIF:	Unemployment Insurance Fund
USPTO:	United States Patent and Trademark Office
WEF:	World Economic Forum
Wenela:	Witwatersrand Native Labour Association
WACC:	Weighted Average Cost of Capital
WIR:	World Investment Report
WTO:	World Trade Organisation
YCL:	Young Communist League
ZCCM:	Zambia Consolidated Copper Mines



LIST OF DEFINITIONS

Bilateral Investment Treaties (BITS): Legally binding contracts wherein two sovereign states agree on the treatment of investors and investments across the borders of the contracting states, normally to be adjudicated outside of the host country, should the terms be breached.

Bonds: Securities used by governments to raise funds to cover budget deficits or to fund extraordinary capital expenditure large infrastructure projects. The bonds are vended to private individuals (retail bonds) and corporate entities. The bonds are tradable and interest rates reflected on the bond coupons are referred to as the “risk free” rate, are variable with changing market conditions and are quoted on a daily basis in the financial press.

Developmental state: A state which leads and guides its economy and in which the state intervenes in the interest of the people as a whole. The state establishes as its principle of legitimacy its ability to promote and sustain development, understanding by development the combination of steady high rates of growth and structural change in the productive system, both domestically and in its relationship to the international economy. Ultimately for the developmental state, economic development is not a goal but a means. (Fine B. , 2010)

Dutch Disease: The unintended adverse impact on the industrial sector of a country where a large commodity boom causes the real exchange rate to appreciate, leaving the local industrial sector uncompetitive internationally.

Foreign Direct Investment (FDI): Net inflows of investments which acquire sustained management interest (conventionally, 10 % or more of voting shares) in an enterprise operating in a country other than that of the investor.

Long-term bonds: More commonly referred to as long bonds, these bonds are promissory notes issued by a national government carrying a coupon recoverable by the bearer on a certain date, as well as periodic interest payments.

Nationalisation: One form of a range of ways in which the state can intervene in a sector or industry. It is the transfer of ownership of an asset or industry from the private sector to the public sector.

Nationalised mining company: A mining company, expropriated by the state from the private sector, with or without compensation. Usually, some measure of compensation is given to the mining company furnishing the asset.

Ownership: A defined equity position in a company, which is easy to determine from the share register of a company.

Portfolio flows: Financial investments into (or out of) an economy in instances where these investments are lower than the minimum 10 % stake in the asset needed to classify the investment as a foreign direct investment (FDI).

Privatisation: The transfer of such an asset from public to private ownership.

Resource Curse: The disadvantage experienced by a country that has a large amount of natural resources, as a result of the resources not being properly utilised for the benefit of the citizens of the country concerned. Instead of boosting the economy and the lives of the people, the people often find themselves in a worse position than before, with little or no improvement in the economy. This occurs because the income from these resources is often misappropriated by corrupt leaders and officials instead of being used to support growth and development. Moreover, the wealth from the natural resources can fuel internal grievances, creating stagnation and conflict, rather than economic growth and development.

Resource nationalism: The desire of the people of resource-rich countries to derive more economic benefit from their natural resources and the resolution of their governments to concomitantly exercise greater control of the country's natural resource sectors. The forms in which these sentiments and control mechanisms are manifested vary widely.

Resource rent: Surplus operating profits over and above a fair rate of return, which are required to incentivise private investment in the high-risk exploration and development phases of mining after the deduction from revenues of directly productive costs. A resource rent is calculated by adding the fiscal flows and other statutory rents to the direct productive costs of the enterprise. The surplus (if it exists) between this aggregated cost and the revenue is the resource rent, which is then split between the mining company and the host government

State control: Comprises direct and decisive action on the part of the state on strategically important imperatives and issues. These range from influencing or directly dictating industry and company policy to interventions in large investments and even dictating management structures. Control does not necessarily mean equity, direction or management. Control can be exercised indirectly through long-term contracts, marketing regulations, proprietary technology developed by state research entities and with restrictions on distribution, and state finance assistance through grants and subsidies.

State equity in mining projects: The state, through standing regulation, solicits a share of the company at the inception of the project for which it may or may not pay.

State-owned mining company: A company that has been established and funded by the state to facilitate a strategic involvement in the mining sector, with the state having a controlling interest in the company. The company is managed by the state as a parastatal.



SI UNITS

bt	billion tonnes
g/t	grammes per tonne
kg	kilogramme
km	kilometres
kV	kilovolts
m	metres
moz	million ounces
mt	million tonnes
mtpa	million tonnes per annum
MW	megawatts
oz	ounces
t	tonnes
tpa	tonnes per annum

A Letter from His Majesty, Kgosi Leruo Molotlegi of the Royal Bafokeng Nation

While diversification remains a key pillar of our economic development strategy, we must also recognise the importance that mining plays in our local economy, and maximise the positive impact of mining on the regional economy.

Few people know or appreciate that every mining job represents around 26 livelihoods. That means that for every person who works on a mine in South Africa, about 26 other people benefit due to its economic multiplier effect. This includes everything from secondary industries such as construction and catering, to the tertiary sectors where the purchasing power of that miner is felt, to the money he remits to his home community in the rural areas. If one then considers a typical local mine community such as my own Community, the Bafokeng, about 50 % of adults are employed, and of those, almost 60 %, employed by mines, we have some 62 000 people employed in the mining industry, it becomes clear how important mining is not only to our local economy, but to the national economy. While mining represents 8 % of South Africa's GDP, it has a major identifiable impact on both rural and urban livelihoods not only in the local mining communities and labour sending areas, but also in the industrial areas such as Gauteng.

As a community so heavily involved with mining, we have undertaken to support study into the issues related to state participation in the mining sector from a global and historical perspective. Our objective is to inform the debate through rigorous and exhaustive research. We have partnered with the Southern African Institute for Mining and Metallurgy and researchers from the Universities of Harvard, Lulea in Sweden, Witwatersrand, Stellenbosch and Cape Town to compile a comprehensive suite of research to create a better understanding of the social, economic and political impacts of state participation and nationalisation policies, as they have been implemented in countries all over the world. This study also considers the implications for the social and macro-economy and government capacity to directly assist the country's mineral economy to grow and yield maximum benefit to its people.

Although everyone agrees on the urgent need for greater economic justice in our country, a preliminary analysis of our research suggests that nationalizing the mines in South Africa would not necessarily achieve the desired impact. It is questionable whether the fiscal and strategic capacity of the state would necessarily be strengthened by straightforward nationalisation or that there would be an increase mining-related jobs and industrialisation. Notwithstanding this observation, there are many other ways in which the State can indeed participate directly in the industry to ensure its development and maximise its benefit while maintaining a critical and healthy investor interest.

As the Bafokeng we support and recognise the study as a non-partisan, ideologically neutral document that seeks to provide all the stakeholders with a common information resource from which they can develop their respective opinions and positions. However, this is not enough. It is imperative that these opinions be aired and discussed in a constructive manner that is going to achieve a balanced outcome for all stakeholder groupings. A neutrally facilitated multi-stakeholder dialogue needs to take place where these groupings can express their opinions and solicit support for their interests without conflict or fear of retribution. This process would include government, labour, industry, the investment community and civil society.

We, as the Bafokeng, are highly sensitive to the fact that the call for nationalisation is being driven by a sentiment that the distribution benefits of the mining industry are seen to be skewed and that there is little tangible benefit to the greater population. In the first instance the study seeks to establish the real extent and reach of economic benefit from the mines. In the second, we recognise that the Bafokeng model of using dividends from platinum mining to support social and economic development in our 29 villages has



attracted increasing attention within southern Africa and the world. The Bafokeng have clearly demonstrated that community participation in mining through the judicious management of community resources is not only possible, but provides the direct benefit and tangibility that broader distribution of benefit through government channels cannot achieve. It is an important qualification here that while there is direct community benefit from a model such as ours, the nation still benefits from its share of economic rents through the fiscal mechanisms employed by the state. We therefore contribute not only directly to the quality of life of our own people, but to the broader social- and macro-economy of South Africa.

We are proud to be supporting an imperative that is in the national interests and will continue to strive towards furthering the causes of social equity, economic justice and a healthy political economy in our country.

A handwritten signature in black ink, appearing to read 'Kgosi Leruo Molotlegi'.

Kgosi Leruo Molotlegi

EXECUTIVE SUMMARY: PART 1

South Africa has been in the grip of a critical political debate on the future of the mining industry for the last eighteen months. This has resulted in an acrimonious stand-off between the ruling party, the African National Congress and its youth wing, the ANC Youth League (ANCYL). The debate, at times, has degenerated into an emotive and rhetoric driven public dialogue on the merits or otherwise of nationalisation. It has been conducted primarily in the media between politicians either side of the party divide with arbitrary commentary emanating from other quarters.

Of concern is that until very recently with the release of the SIMS report and the detailed responses from industry, labour and other organisations, the argument around nationalisation and its underlying causes has been relatively unstructured and largely unqualified beyond the principal players and industry representatives. More seriously, there has been a widespread perception about the lack of thought leadership in the debate either from government or industry. This perception is over neither industry nor government creatively addressing the real issues underlying the call for nationalisation, choosing rather to play the nationalisation issue itself. South Africa's political leadership demurred in taking a strong stand against the ever-vocal youth league while industry's response has been viewed as tentative, stereotyped and fragmented.

As a point of departure, it is vital to appreciate that this debate is *not* about nationalisation. Rather, nationalisation is a proxy for much more serious political economic and structural flaws in the South African body politic. While populist rhetoric carries the torch of nationalisation as a placebo for the economic ills facing the poor, White business tends to see the issue of nationalisation as being an election ploy exploited to the limit by the ANCYL firebrand, Julius Malema. There is the naïve perception that since he has been suspended the problem has been resolved. This has been confirmed by the pronouncements at the South African Mining Indaba by the Minister of Mineral Resources, Susan Shabangu, that nationalisation is not an option. Were it this simple it would be a much more manageable situation.

This study commenced in August 2011 at the height of the confrontation over the nationalisation issue. Recognising that the debate lacked structure and that few people understood or appreciated the nature and extent of the issues underlying the *contretemps*, the Southern African Institute of Mining and Metallurgy (SAIMM) elected to deliver a report that would broaden the debate to other stakeholders. The principal objective of the study was to facilitate and inform a rational, non-ideological dialogue to engender an understanding of the real underlying issues to those South Africans who are materially affected by the debate. This understanding could be used as a basis for qualified discussion directed towards reaching a pragmatic and achievable outcome that will be in the broader national interest. It is an important qualification that the study was undertaken prior to the release of the ANC State Intervention in the Minerals Sector study (SIMS). The close correlation between the findings of this study and those of the SIMS study are unsurprising given the respective closely aligned focuses of the studies. The primary difference is however one of ideological interpretation. The ANC document provides the basis for policy recommendations to the National Executive Committee (NEC) while the SAIMM study strives to inform dialogue on the issues at hand and to equip those stakeholders who intend contributing to the debate to make qualified decisions and inputs to the process.

Key objectives of this study were to:



- develop an understanding of the concept of resource nationalism, its facets, related issues, and the collateral forms of state intervention
- interrogate the global repository of literature to establish best practice guidelines (what works and what does not work)
- contribute to this body of literature in an accessible, pragmatic and usable manner
- produce a framework for developing a common understanding of macro and socio-economic impacts of state intervention
- provide a common knowledge base and platform for a multi-stakeholder debate on state intervention.

While the work was initially intended to specifically address the South African nationalisation issue, it was quickly established that this was symptomatic of the deeper core issues referred to above, and one had to address these before tackling nationalisation *per se*. Secondly, it was clear that what was happening in South Africa could not be viewed in isolation from the a broader global phenomenon of resource nationalism. Also that the nationalisation debate was possibly a high-profile and dramatic manifestation of a common trend afflicting mainly minerals-endowed emerging economies but also being witnessed in developed countries such as Australia and Canada.

Finally, one could not divorce the current dynamic from the political economic history of South Africa, both past and recent. In this sense the debate cannot but avoid being located within the context of economic and social restitution.

Resource nationalism as a context for understanding the South African debate

As a term, resource nationalism is an ill-defined and indeterminate concept. It is used in this study to describe the desire of the people of resource rich countries to derive more economic benefit from their natural resources. It also addresses the resolution of their governments to exercise greater control of their respective countries non-renewable natural resource sectors. The key tenets of the sentiment are the:

- political doctrine on state ownership of natural resources
- perception that the state can both effectively and efficiently unlock resources, and facilitate a more inclusive and equitable dispensation of mineral rents
- political need for employment creation and facilitating higher levels of labour absorption
- leveraging the mining sector to enhance the strategic and fiscal capacity of the state through rents
- quest for value-addition from the raw material produced
- minerals-related industrialisation and the accompanying economic diversification driven by the extractive sectors. The critical issue here is the manner in which this is to be achieved.

While one is tempted to vilify the state for wishing to further intervene in the industry, it is important to appreciate that the state has a legitimate interest in ensuring that the country and its people secure an equitable allocation of the benefits flowing from the economic activity generated by the extractive sectors. However, one must simultaneously recognise the legitimate concerns of business and civil society as being equally important.

It is also tempting for leaders in industry and the ranks of the country's middle class, both white and black, to dismiss the rhetoric as being part and parcel of populist and labour socialism. This is not only naïve but potentially dangerous. However, the corollary to this perception is the ardent belief by the populist youth

league that control of the mines will achieve their developmental objectives. This blind pursuit of overriding state control of the mines is even more dangerous, and the manner in which the mining industry may be leveraged to achieve these objectives needs to be more openly considered. As polemical and counter-intuitive as it may seem, the pro-poor policies of political parties and inexperienced governments may ultimately prove to be counterproductive to the objectives espoused by government.

In South Africa, it is patently clear that there is significant tension between populist rhetoric and developmental economic policy, despite the fact that the objectives are very closely aligned. The study examines the *raison d'être* for resource nationalism, irrespective of its form or expression. These are primarily to:

- provide for a more equitable distribution of benefit from mining activity
- provide a measure of restitution for and a counter to the historical exploitation of natural resources where there has been a perceived inadequate benefit to the people of the countries hosting mining activity
- introduce measures to enhance the country's economic capacity, and to diversify and grow its economy sustainability.

It is unlikely that many reasonable people of any given political persuasion would argue with these objectives. Resistance is therefore a function of the rhetoric and expression of the objectives and if one ignores or is able to cut through this, it is the manner in which the objectives are to be achieved that becomes the issue.

If one accepts this premise, it is not beyond the bounds of reason that there can be an interest-based discussion on how these objectives are to be achieved. This convergence is the equilibrium referred to in the title of this study: the ruling party can ignore the sentiments driving the expression of resource nationalism, but at its peril. By nature a government has the mandate to intervene should it feel its objectives are not being met, but this intervention can be either positive or negative.

Government response to resource nationalistic sentiment

The expression of resource nationalistic sentiment implies a popular pressure on government to develop and introduce new policy responses directed towards:

- reducing inequality
- controlling natural monopolies
- curtailing market price volatility
- protecting and creating employment
- regulating quality
- providing public goods
- creating essential infrastructure
- exerting macro-economic policy influence.

These arguments are, more often than not, imprecise and are very difficult to qualify, quantify and realise. The study enters into detailed discussion on these matters. In addition to these generic policy responses, there are more pragmatic economic issues that need to be considered and are discussed, specifically the:



- interest in procuring a greater share of mineral resource rents for the state through greater state participation in the industry
- nature and extent of state participation in the economy
- impacts on the efficiency of the mining sector in the economy
- fiscal risks or benefits of the state intervention
- impact on country risk ratings and hence foreign direct investment (FDI)
- impact on existing and new fixed domestic investment
- enhanced or eroded geopolitical/ geo-economic strategic leverage
- cost of capital.

Political risk, investment returns and socio-economic contribution

The danger here is that should the nature and extent of that intervention become untenable to investors, they have the power to withdraw their investment and locate it elsewhere or withhold further investment. This reluctance to invest has material and significant economic impacts. In the first instance, it raises the level of sovereign risk which translates into higher 'risk-free' interest rates, typically reflected in the government long bond rate. Secondly, it translates to higher risk premiums. These two rates provide the basis for the Weighted Average Cost of Capital calculation (WACC). The higher a project's WACC, the lower the project return and the less attractive the investment.

While most governments claim to be agnostic about the identity or nationality of investors (if one mining company leaves, another will take its place), the quality of the investor is a factor in economic development in leveraging the ability of mining companies to deliver on government's socio-economic objectives. The less attractive a project return, the lower the quality of investor. This translates into the less willing or equipped companies being less committed to subscribing to high standards of environmental and social management or labour relations. In this sense, the aspiration of responsible mining becomes counter-productive. One merely has to look at the environmental and social standards of the large Western mining companies which, while still leaving much to be desired, subscribe to high levels of environmental and social performance imposed on them by their shareholders and international protocols such as the EETI and equator principles. These standards are not achieved by many of the newer players as seen in Tanzania and the DRC today.

A further factor is that the higher the cost of capital, the lower the fiscal returns from a mining project. In resource rich countries, this directly constrains fiscal flows to government, compromising its ability to deliver on social delivery commitments.

Political elements of resource nationalism

This study engages a multi-disciplinary approach to resource nationalism in general and the key findings here are synthesised from the various sections which often express different perspectives on the same issues. Within the context of the nationalisation debate, one cannot consider the yin of nationalisation without the yang of privatisation¹ together with locating the South African imperative in the broader context of a global trend towards resource nationalism. One of the more important contributions that the

¹ "yin and yang", is an eastern concept used to describe how polar opposites or seemingly contrary forces are interconnected and interdependent in the natural world, and how they give rise to each other in turn. Opposites thus only exist in relation to each other.

study makes to the debate is its discussion on the cyclicity of nationalisation and privatisation. The study points out that:

- nationalisation cannot be viewed in isolation from privatisation
- nationalisation events closely correlate with windfall gains in times of high commodity prices
- over the last century there have been distinct cycles of privatisation and nationalisation in most established mineral endowed economies
- nationalisation and privatisation cycles are common in Latin America, Southeast Asia, and sub-Saharan Africa.

The implication is that nationalisation is of economic and political necessity and temporary in nature. Cognisance must be taken that in the event of a government, for whatever reason, electing to nationalise a project or sector, its stewardship of the asset is vital to protect the health and integrity of the asset to ensure its residual value to the state reprivatised. This residual value resides not only in the resale value of the asset by government to private interests but its ongoing economic value to the state.

It is therefore contingent on governments not to view mines as cash cows to be milked unmercifully, and that reinvestment of the returns from mines is a vital responsibility of ownership. Unfortunately, in many instances, it is not only the over-exploitation of the mining assets on the part of the state, but in regimes with weak leadership, mines are all too often prey to corrupt politicians. This obviously compromises the economic sustainability of their operations. In this respect, generic features of nationalisation in weak political economies include the fact that:

- it is more common in countries where the economy, and hence the tax base, are heavily reliant on one or a few commodities
- beneficiaries of nationalisation are often politically powerful and may come from concentrated groupings such as organised labour
- the costs of nationalisation are diffuse and shared by current and future tax payers while the benefits are shared by a much smaller constituency
- longer-run economic efficiency tends to be sacrificed for short-run political benefits.

The last point on *short-termism versus long-termism* deserves further analysis in that the political imperative for nationalisation and the garnering of votes may over-ride economic common sense as:

- there is a conflict of interests between short-term political expedience and long-term economic benefit
- electoral cycles conflict with the longer gestation periods of state capital investment in mining where mining capital development requirements are inevitably subordinated by service delivery imperatives.

Consequently in a democratic system, there are significant political incentives to pursue nationalisation for short-run political benefits while sacrificing longer-run economic efficiency.

The assertion is made earlier in this summary that there is frequently *tension between populist rhetoric and pro-poor developmental economic policies*. Coming from a perception among the poor, mining is more often than not seen as a source of wealth rather than an industry that is fundamental to societal function and human development. This assertion that these policies are polemical and counter-intuitive arises from the



reality that the beneficial value of nationalised mines to the state is often eroded by corruption, lack of institutional capacity, and bureaucratic inefficiency.

In addition to this, one tends to ignore that the damage to mining runs far deeper, impacting on its backward and forward linkages into other economic sectors, and so undermining the economic multiples which represent the sustainable feature of mining activity. The contingent damage to secondary and tertiary sectors and their trajectory into other primary sectors is often more extensive than the damage to the mining industry itself.

As nationalisation in emerging economies often follows independence from colonial or neo-colonial regimes, the question of the logical linkage between democracy and development arises. Newly democratic regimes more often than not purport to use their political power to enhance the economic benefit of the poor. However, the poor institutional capacity that often characterises newly independent states juxtaposed with the potential for corruption that is often endemic to these weak or failed states imply that:

- *democracy does not necessarily lead to development but democratic regimes tend to be more sustainable and generally show higher degree of stability*
- in certain circumstances authoritarian forms of political rule can in fact support development but the results show significant variability
- democracy is innately about the developmental impact on people but more about the political rights (of nationals) to participate in shaping the future of their countries
- economic and social development should be focused on equity and social justice.

Juxtaposed with development is the fundamental right to ownership and the question of the inalienable right of nationals to determine the manner in which their natural resources are utilised. This democratic discretion however is often not in the best interests of economic efficiency or sustainability.

Features of state ownership of global mineral production

A cursory study in this exercise of some 13 countries along with some fundamental research into the specific aspects of state ownership of mines gave rise to some interesting observations.

- Nationalisation occurs much more frequently in the natural resources sector and in utilities than in other sectors of the economy.
- The occurrence of nationalisation in the resources sector is positively correlated with the real price of these commodities: high commodity prices have been associated with nationalisation and low real prices with reprivatisation.
- Waves of nationalisation often occur simultaneously in several countries in periods of high commodity prices.
- There is a perception that over the last two decades there has been an increase in aggregate state ownership in the mining industry. However, if one strips China out of the equation, there is in fact a net decrease in aggregated levels of nationalisation.
- Levels of state participation differ from commodity to commodity with iron ore, bauxite and copper being the most common metals under state ownership (although bauxite is primarily sourced from Guinea Conakry).

Conflicting objectives between government and mining companies

The objectives of government are more often than not diametrically opposed to those of the private sector companies operating within their jurisdictions. Governments have a fiduciary duty to:

- maximise and harness economic rents from the industry
- ensure the unfettered growth of its extractive sectors
- constrain costs to maximise profits.

Private mining companies also strive to secure contracts with host governments that allow them to be the primary beneficiary of the windfalls from commodity booms. Within this context, it is a commercial fact (as opposed to an ideological indictment) that mining companies have little or no incentive to:

- optimise the national mineral economic complex (they will procure the cheapest intermediate inputs irrespective of their country of origin and benefit where it is most cost effective)
- maximise rents to the fiscus (the very nature of financial engineering is to reduce the payment of tax)
- utilise mineral resources that are surplus to the companies concurrent or strategic requirements (companies have little incentive to oversupply the market as this reduces prices)
- be altruistic about employment and social costs during recessionary periods.

These conflicting objectives provide the agar for government to business hostility, and underpin the imperative on the part of the state to intervene in the sector in the belief that it can more effectively achieve these objectives with higher levels of control. There are other misperceptions about government control over the sector with respect to a government's ability to enhance the developmental capacity of the industry. These include the notion that government:

- can improve the efficiency of the resource sector to deliver rents when it believes that the private sector has failed
- will not be affected by the same exogenous factors causing perceived private sector failure
- can provide an efficient platform for the redistribution of benefits from the sector to reduce the perceived inequalities.

The net effect of aggressive state intervention as envisaged by ANCYL and possibly the labour movement are:

- negative investor perceptions and sentiments with regard to state intervention
- uncertainty over security of tenure in the face of increasing resource nationalism
- shareholder dilution arising from indigenisation programmes
- erosion of the margins resulting from higher resource rents
- higher risk-free rates resulting from higher levels of government debt.

The direct impacts of instability in the political economy of the host country are accompanying higher long-bond rates and investment risk premiums that contribute to higher political risk premiums. This results in increases in the Weighted Average Costs of Capital (WACC) for mining projects which, in turn, serve to reduce Net Present Values (NPV) and Internal Rate of Returns (IRR) that are core to investment decisions.



The net effect is that the more marginal projects are rendered unviable and are closed down while the less attractive new projects are not commissioned². This higher cost of capital results in:

- lower taxable incomes from the mines resulting in eroded fiscal flows from the industry
- a contraction of the productive capacity of the industry leading to a lower sectoral labour absorption capacity
- economic domino effects into the secondary and tertiary industries exacerbating the economic travails higher costs of capital into other sectors which also compromises their viability and fiscal generation capacity.

All of these impacts are directly contrary to the objectives of government to leverage the economic strength of the industry to provide the money for social development. Negative state intervention in the industry that deters investment paradoxically undermines the pro-poor policies that may have motivated the nationalisation strategy.

² At the time of writing Anglo Platinum and Impala announced the deferral of a tranche of new projects

EXECUTIVE SUMMARY: PART 2

SOUTH AFRICA: A CASE STUDY

The above analysis provides a general contextual framework with which to examine the South African situation. However, before proceeding with this analysis, it is important to crystallise the key questions in the South African debate which are outlined below.

1. What is driving demands for nationalisation in South Africa?
2. What are the objectives of the proposed imperatives?
3. How can these objectives be pragmatically addressed?
4. Does the South African government have the institutional capacity to manage the envisaged reforms successfully?
5. How does one balance the shorter-term political advantages with the longer-term sustainable economic development?

At the core of the problem is the deep seated popular frustration at the perceived lack of broad-based benefit from the mining industry as promised by the ANC on their transition to power in 1994. This perception is to a certain extent ill-informed as few people have a clear appreciation of the economic benefit derived from mining at all levels of society. However, perception is political reality and the distortions of the black economic empowerment (BEE) process go to the root of the issue. There are a number of supplementary factors that contribute towards this sentiment.

- Overt wealth on the part of a few politically connected individuals and the conspicuous demonstration of this wealth.
- A lack of clear accounting standards and methodologies to assess performance against policies and statutory measures for broad-based black economic empowerment (BBBEE).
- The perception of skewed distribution of wealth derived from the mining sector.
- Popular response to the rhetoric criticising mining companies of economic exploitation.
- Non-achievement of policies on the part of government.
- Expectation gaps amongst the people.
- Lack of leadership in both government and industry.
- Lack of implementation strategies for coherent national economic plans specifically linking mining development to economic diversification (most economic development plans allude to this conceptually).
- Low levels of trust at best, and outright hostility at worst, between government, industry, labour and civil society.

The stated objectives of calls for nationalisation

If one looks beyond the rhetoric of ANCYL's manifesto on nationalisation, the stated objectives are in fact not unreasonable. In nationalising the mines, ANCYL seeks to:

- fulfil the spirit and intent of the Freedom Charter of 1955



- increase the fiscal capacity of the state to deliver on its social programme commitments (housing, health care, education)
- increase the strategic capacity of the state to develop the mining sector
- increase the labour absorption capacity of the state
- improve levels of industrialisation around the industry
- enhance levels of beneficiation
- create a more equitable distribution of benefit from the mining industry.

The economic and techno-legal realities of nationalisation

Nationalisation is the compulsory acquisition by the state of previously private sector-owned firms. In fairness, for poor people who have little technical interest in the economy other than the short term challenge of feeding and caring for their families, nationalisation of the mines is an attractive concept. The daily images of the newly super-rich black bourgeoisie superimposed on the memories of white wealth, are both being associated with mining to a large extent. To many people, the logical step is to remove this wealth from the few individuals and give it to the people. Unfortunately, the obstacles and mechanisms associated with any form of wealth grab by nationalising the mines is more likely to be to the detriment of the poor than to their benefit.

One of the principal tenets of ANCYL's call is the issue of compensation for nationalised mines. In constitutional states, such as South Africa, there are legal guidelines that determine the compensation government must pay in such cases. Governments consequently do not have an unimpeded choice between models of nationalisation. Instead, the legal framework within which they operate will determine the available options.

In the South African situation, it is contingent on the courts to determine the appropriate levels of compensation that should be paid should the government proceed with nationalising the mining sector or targeted elements. Within this valuation process, the market value of the companies is an important input but there are also factors to be considered, notably the:

- current use of the property
- history of the acquisition and use of the property
- market value of the property
- extent of direct state investment and subsidy in the acquisition and beneficial capital improvement of the property.

Assuming one can tackle these hurdles, the fiscal cost of nationalisation becomes the major issue. Research by Keeton and White in 2011 estimates that should government buy a 60 % stake in the local mining companies, the cost would be around R970 billion. This would more than double the government's outstanding debt, which was R820 billion at the start of the current fiscal year (National Treasury, 2011). The higher debt stock would increase government's interest bill by R46,6 billion per year on the very optimistic assumption that government can finance the extra debt at existing capital market rates. As the current turmoil in Europe has demonstrated, government is likely to pay much more than a R46,6 billion bill.

South Africa's mining taxation system has been successful in generating government revenue, and then redistributing this revenue through the annual budget, encouraging downstream beneficiation, and good social and environmental practices by mining companies. This is possible because of a mature mining industry and efficient, modern tax administration. The question is really the extent to which the state could be expected to improve on its fiscal returns through nationalisation.

Government's revenue would undoubtedly rise after nationalisation as it would gain 60 % of the sector's profits in addition to the taxes it currently collects. In 2010, this would have added R20,9 billion to government's revenue (Keeton and White). Assuming then that government runs the mines as efficiently as the private sector did, it would cost government R46,6 billion extra per year (in interest after purchasing the mines) to gain R20,9 billion in revenue. The loss on this simple calculation is R25,7 billion each year. The fundamental premise that nationalisation would increase the fiscal capacity of the state therefore fails on the basic requirements of financial management, and will reduce the resources government has available currently to pursue its social delivery and social development goals.

In considering the merits or otherwise of nationalisation, apart from the question of affordability, there are other factors that need to be taken into account.

- a) Widespread private ownership encourages the public to support the institutions of private property, and all agreement and contract rights that support specialisation and market co-operation.
- b) An adverse long-term consequence of nationalisation is that it would undermine the support for market institutions as state ownership creates dependence on government and lowers the support for these key market institutions.
- c) Since nationalisation is typically financed through government debt, government's cost of finance increases its levels of debt.
- d) The post-nationalisation financial performance of the mining companies and the affect this will have on the goals and incentives of the nationalized firms and the industry at stake.
- e) Government's cost of finance is a determined by a number of factors, which in turn is contingent on:
 - the size of the existing stock of public debt
 - recent changes in the public debt (surpluses and deficits on the national budget)
 - government's track record, especially on inflation and the timely payment of debt.

On the question of debt, South Africa has relatively little sovereign debt at present and it has a credible fiscal and monetary track record but the cost of nationalisation will impose a considerable financial burden on government. In attempting to estimate government return on nationalised assets, it is instructive to consider the dividend performance of the industry. For example, in 2010 Goldfields yielded 7 % relative to market capitalisation on local operations, while Harmony reported a net loss and AngloGold Ashanti a yield of 1 %.

These yields need to be offset against the cost of government debt at around 8 % i.e. government could not cover its cost of nationalisation through dividends. In addition to the government cost of capital, other reasons for a rise in government debt would be the national risk ratings (Standard and Poor, Moody's, Fitch etc) would be downgraded. It is clear that nationalisation is financially and economically risky even under very optimistic assumptions.



Bilateral agreements

There are some 59 bilateral agreements that govern expropriation of assets of foreign investors. And by which government has committed itself to full compensation in the event of expropriation. These are given in Appendix 1 of the main report.

By way of example, approximately 53 % of AngloGold Ashanti's shareholders are North American and 12 % from the United Kingdom. On average more than 40 % of South African mining stocks are foreign owned and these investors are protected by the bilateral agreements. This alone represents a minefield whereby nationalisation would lead to significant international litigation that would inevitably have a major impact on investor confidence in the country.

Market based institutions

Nationalising the resources sector will undermine support for those market based institutions we need in order to achieve a higher long-run growth trajectory. There are also considerable amounts of capital investment that government would have to raise to maintain and expand the mines.

The question of corruption

A significant consideration with respect to the conceivable success of a nationalisation programme is one of discipline and constraint within the public service. Unfortunately, given the increasingly high levels of rent-seeking activity and corruption being reported within state structures, the possibility of the government achieving its stated social development objectives on the back of a nationalised mining sector in South Africa cannot be guaranteed. To nationalise on the assumption that the state is not receiving adequate resource rents and foregoing better economic development opportunities would be a fundamentally flawed premise.

Achieving the objectives

The problem with ANCYL's demands lie not so much in the objectives themselves but in the manner in which the League hopes to achieve these objectives. The proposed way forward is unlikely to succeed for cogent economic and structural reasons. More efficient mechanisms for achieving these same objectives are proposed below.

1. An honest and transparent review of existing policy to assess the successes and failures of current policy in achieving optimum broad-based economic benefit from the industry. The policy should be amended accordingly as responsible progressive upgrades of existing policy are preferable to major policy shifts every 20 years. Amendments would primarily focus on more effective delivery of the objectives of the MPRDA/Mining Charter.
2. There is a need for more coherent implementation strategies and plans: policy in itself is not enough.
3. The state needs to accept its role in establishing sustainable levels of broad-based empowerment that can practically be implemented according to commercial drivers.

4. There are a number of pre-requisites for improving on existing policies and institutions in striving towards the developmental state envisaged by the Polokwane policy discussions. This can be achieved though:
 - a) planning and capacitating the developmental participation of the state in the mining sector
 - b) developmental participation by the state needs to be properly planned, resourced and implemented
 - c) the current system of the relevant state institutions such as science councils, development finance institutions (DFIs) and tertiary training and education institutions having commercially to fund themselves detracts from their national developmental mandate.
5. Regulation should be supplemented by tried and tested fiscal competitive instruments that enhance the country's industrial, trade, and financial capacity such as tax credits, tax breaks, subsidies, import controls, and export promotion. Targeted, and direct financial and credit policies are needed.
6. Resources rents can be optimised through current corporate tax and royalty instruments.
7. The state-owned mining company should be capacitated to the point where it can successfully compete with other companies on equal terms.
8. There is an urgent need to rebuild existing institutions such as DFIs and science councils
9. Infrastructure requires expanding and optimising so that the industry and country can improve its competitiveness.

These elements are logical and, to a greater or lesser extent, are covered in the ANC SIMS study. However, South Africa has a core competence in producing good strategy and creative policy, but all too often fails on implementation. For the developmental participation of the state in the mineral sector to succeed, the key success factors are:

- capacity for planning
- the political will to take decisive policy action
- close co-operation with the business sector
- effective management and strong leadership with key stakeholders before major changes are made to the state's share in resource rents.

A critical aspect of the potential success of the South African government's proposed intervention in the minerals sector is the balancing the shorter-term political advantage with longer-term sustainable economic development of the country and hence its contribution to the economy. This cannot be undertaken until a clear idea is established as to the *aggregate* net economic contribution that the sector makes respectively to the fiscus, the macro-economy in the secondary and tertiary sectors, and the social economy. This requires an analysis that reflects:

- a) independent evaluation of current benefits deriving from the sector
- b) objective, accurate reporting in terms of compliance with the Charter and MPRDA commitments



- c) transparent reporting of revenues collected from mining such as percentage of GDP, corporate taxation and fiscal flows
- d) a standardised format for ESOPS (e.g. the effectiveness of the Kumba model).

However, once the extent and reach of the sectors benefit is better understood, planning and management procedures need to be put in place to ensure that mining-related economic development programmes transcend elections and election campaigns. Because of the emotive nature of the perceptions of the mining industry, one of the greatest threats to any economic development imperative is the tension between the five year electoral cycle and long-term gestation of mining investment. One of the problems which arise out of this tension is the tendency of politicians (worldwide) to subordinate state treasury resources to social delivery programmes at the expense of large-scale fiscal commitments to the industry to garner political support at times of election.

Other steps that might be taken are to address this tension directly in strategies such as Vision 2030, the National Growth Path and the National Planning Commission. Economic planners need to take a more specific, longer-term perspective on the contribution of mining to economic growth. Furthermore, economic development programmes need to be implemented under the direction of treasury and staffed with professional, apolitical long-term mineral economic planning teams. Also, there should be no political interference with the interpretation of regulations, and programmes must be cast in stone and endure through changes in political leadership.

Institutional capacity

In its quest to become a developmental state, it has to be established as to whether the South African Government has the institutional capacity to manage the envisaged reforms successfully. Encouragingly, the country has most, if not all, the necessary institutions needed for developmental participation in the sector. However, in terms of their statutory mandates, it is questionable as to whether these institutions are equipped to extend their roles to meet the demands that are required of them to give effect to a developmental state. It is critical that mandates be reviewed and that adequate money be made available for the re-capacitating and upgrading of:

- DFIs
- education and training facilities
- science councils
- critical infrastructure needs and development.

In terms of fulfilling their current statutory mandates, one of the most daunting problems facing the mining related science councils is their method of funding. The minerals-related science councils are procuring in excess of 50 – 60 % of their revenues from the private sector. For example, in 2009 and 2010 Mintek received only 36 % of its revenues through state grants. In forcing the science councils to generate their own funding, the councils are to a large part competing with the private sector and universities for consulting work and contract research. If they are to be effective in providing for the knowledge base proposed in the SIMS document, the levels of state funding for these institutions should be increased to allow them to more fully service their statutory mandates.

The other principal component of the knowledge base is the competence, skills base and productivity of the work force. This is, in turn, a function of the education and training facilities available to the industry.

Finally, government should not underestimate the role that mining companies play in economic development planning. In an economy where human and financial resources are largely allocated on the initiative and at the discretion of the private sector, economic planning to a great extent falls outside of the ambit or control of government, and is essentially decentralized. In this sense, private sector companies are among the most important generators and implementers of economic planning in a market economy. Mining companies therefore are located at the heart of the process of economic development and the extensive co-operation that goes with rising productivity that occurs in and between companies can either be harnessed by government to enhance its institutional capacity, or destroyed. Governments however take a risk in not co-operating given the lack of institutional capacity experienced by most governments, particularly at the level of local authorities.

Infrastructure

The SIMS study also identifies the fact that out of 71 mineral endowed economies around the world, South Africa was the only country not to benefit from the two recent resource booms. One of the principal reasons stated was the lack of infrastructure:

- power generation: severe restrictions, shortfalls and delays in new projects being brought on stream resulting in production cuts and suspended investments
- rail and port capacity
- Richards Bay
- Sishen-Saldanha and Saldanha Bay
- Waterberg coalfields
- water supply (Eastern limb of the Bushveld Complex, Waterberg).

Proposals

While it is clear that nationalisation is not a developmental option to addressing the popular issues around equitable distribution of wealth generated by the mining companies, it is equally clear that the popular anger at and frustration with the mining industry needs to be dealt with, failing which the sector will continue to be a political football.

This requires a balanced approach to understanding the issues as well as an informed, non-ideological debate as to the objectives and potential outcome of state intervention in the sector. It is fundamentally important to fully and constructively engage the issues through a specific multi-stakeholder engagement around resource scarcity and the need for efficient extractive regimes.

The process, irrespective of how uncomfortable the issues may be, should unequivocally interrogate the relative economic efficiencies of the various forms of resource nationalism and confront the problems associated with state intervention. Furthermore, it should seek appropriate solutions towards establishing a new equilibrium between the levels of state intervention and benefit, and the economic health and investment potential of the sector. In this sense it would be irresponsible to consider new models for resource rent management and the equitable distribution of benefit without first engaging with those who are frustrated with the old models.



The following proposals are suggested as the way forward.

1. A multi-stakeholder dialogue process be initiated to inform the debate at a national level.
2. This process should endeavour to seek convergence and consensus between Government, mining companies and other stakeholders as to the nature and extent of government intervention and the specific consequences for each stakeholder group. This would include:
 - a. all written agreements between government and mining companies on the terms and conditions of mining agreements need to be transparent and accessible to other stakeholders
 - b. establishing commonly agreed compliance monitoring and enforcement mechanisms
 - c. developing and communicating effective conflict resolution mechanisms governing government interventionist strategies.

EXECUTIVE SUMMARY: PART 3

REVIEW OF THE ANC STATE INTERVENTION IN THE MINERALS SECTOR (SIMS) REPORT

The SIMS report is a remarkably comprehensive document that traces the history of the mining industry in South Africa as context for the multitude of recommendations that it makes. While the document is highly ideological in its presentation, language and discussion, one cannot lose sight of the fact that it is prepared for the ANC national executive and is prepared specifically for a highly politicised debate and the ubiquitous dogma in this sense is not out of place. Notwithstanding this, the report is rigorous in its approach and ostensibly logical in its conclusions within this political context.

The study goes into detail of the countries visited and documented in its quest to establish models for various elements of the policy framework that in the opinion of the authors, require attention or the intervention of the state to correct outstanding past inequities. The objective is to assure a more equitable distribution of benefit from the country's mineral sector and to leverage what remains of the country's minerals inventory for more sustainable, diversified economic development.

At the outset the report premised on the thesis that while the country's mineral resources endowment could underpin growth, development and job creation, it will not happen through "market forces" alone. This process would be premised on the concept of a democratic developmental state contributing to the governance and development of the country's mineral assets. Fundamental to the process would be the development of backward and forward linkages into the sector which would be leveraged to stimulate industrialisation and job creation. The capture of an equitable share of the resource rents is also a kernel issue in the study.

The study believes that it is necessary to transform the Minerals Energy Complex (MEC) as the core of the economy into the driver of growth and development through the maximisation of all the fiscal, backward, forward, knowledge and spatial linkages. It believes that this should be done through good governance as it views the mining industry as a (private sector) vehicle for super-profits, many of which are expatriated.

It maintains that a resource-based growth and development strategy would be greatly enhanced by an equitable SADC regional integration strategy. The report states that South Africa's taxes are generally lower than most other countries. It sees the major challenge to be the garnering a higher proportion of the super returns from the extraction of the country's resources reports to the state through the introduction of a resource rent tax. The study envisages that these taxes will be channelled to an offshore sovereign wealth fund, which would be used to develop infrastructure, skills and geo-knowledge.

The study is strongly supportive of the state providing the resources to increase the institutional capacity of the minerals related science councils and education and training institutions. In the case of the science councils it moots the formation of a mineral technology science council that would effectively be a hybrid of the existing CSIR, Mintek and CSIR Miningtek. This council would be mandated to develop South Africa's mining technology offering to foster backward and forward linkages and make the country more competitive. It also places significant emphasis on the geological survey role of the Council for Geo-Sciences. This institution should be mandated to find new deposits of strategic minerals. These would be reserved for the State-owned mining company or ensure that valuable rights are concessioned with the developmental returns being the major criteria for award and licencing. This process would be conducted through public tender ("price discovery") or the state-owned mining company.



Critique

As a point of departure, the report probably does itself a disservice in billing it as the “State Intervention in the Minerals Sector” as this creates an extremely negative connotation for mining investors. As the report in fact addresses a myriad of areas and ways in which the state intends to participate in the minerals sector, it would have been more constructive to have named it the “State Participation in the Minerals Sector” report. This could have given the report a more positive spin for the investor.

The commitment of the government to invest substantially in critical mining infrastructure and mining-related institutions from education and training facilities, to the return of the science councils to their original mandates is extremely important and very welcome. This can contribute substantially to the regaining of South Africa’s lost competitiveness in the global sector and the restoration of its place on the podium as a great mining company.

The strategy addresses a wide range of concepts for the restructuring of the minerals industry, many of which are highly complex and longer term. By far the most important outcome of the report and the one proposal that is most likely to take root is the proposal for a resource rent. Ostensibly, this proposal is neither a new idea in the global minerals industry, nor is it an unreasonable concept in terms of the owner of the minerals (the South African State) sharing in the upside of commodities bull cycles. There is also the important proposed concession on the reduction of royalties from the current contentious levels to less than 1%. The problem lies not so much in the rent itself but in the fact that for the better projects, it has the propensity to render the South African offering markedly less competitive than its peers elsewhere. South Africa is already seen as a difficult venue for investors into the mining sector and the many studies conducted, including the conservative Fraser Report, reflect a preference for investment elsewhere because of the complexity of doing business in South Africa. The introduction of this rent adds a layer of complexity that will inevitably deter investors.

On the positive side of the equation however is the proposal that this rent be ring-fenced for industry development. This juxtaposed with the reduction of the royalty is an important feature that if promoted correctly, may well find favour with the industry. However, the stark ideological dogma with which this proposal is presented, even with due consideration for the fact that this is an internal ANC document with a specific readership that subscribes to the paradigm of the document, is disconcerting to those outside of that context, particularly the critically important investment community.

A key issue with the proposal to ring-fence the resource rents for industry development will fall foul of current treasury attitudes towards and policies on the ring-fencing of fiscal flows. The danger lies in the acceptance of the resource rents and then treasury’s refusal to deploy the rents for the purposes proposed here. This is exactly what happened to the Minerals Royalty, which was originally intended to be ring-fenced for social development around mining communities and labour sending areas. Had this revenue stream been directed towards restitutive social development that was directly and tangibly associated with mining by the beneficiaries (i.e. poor people who have been negatively affected by mining), it is quite possible that this current call for the nationalisation of the mines might have been less virulent than it is. The exercising of the resource rents and the failure to ring-fence these for industry development would be a significant body blow to South Africa as a mining investment venue.

The myriad of proposed taxes and levies will not be attractive to investors, but some of them have merit. The chrome industry, for example, is highly supportive of government intentions to implement export levies on raw chrome.

On the question of deterring foreign investment in mining, it raises the question of the all too common South African perception that the country is a desirable investment venue and that one can ignore the attitudes of investors who are all too often seen as exploiters of the poor and exporters of the country's mining benefits. Foreign investment is critical in the industry and one cannot ignore the impact of rhetoric or interventionism on the industry.

There is a pervasive attitude among many South African bureaucrats, politicians and activists that we as a country are agnostic to who invests in the country. The progressive disinvestment and failure to reinvest in South Africa of the larger multi-nationals (despite their constant denials to this effect) is highly problematic. There will be takers for their disposed assets. However, these takers are all too often second tier South African players, who are also foreign funded, who have fewer resources, less reputational risk and less shareholder pressures around social licence and environmental issues than the major players.

Much of the new investment also comes from the *new players*, the Chinese, Indians and Russians who are inevitably less sensitive to social licence issues, have a harder-line and more profit-oriented approach (and hence potentially exploitative) to doing business and less experience in issues around sustainability. While one might not like the considerable arrogance of the large mining multi-nationals, they have been forced to comply with international protocols around social and environmental management and financial transparency since the Brundtland Commission in the 1980s. The *new players* often seem reluctant to subscribe to protocols such as the Equator Principles and EITI, which is not good for social development. Moreover, these companies are far more willing, adept and experienced at negotiating social compacts than the new players.

This is important in that the entire thrust and direction of this strategy is to leverage the mining industry toward poverty alleviation and more equitable distribution of wealth. Should these aggregated measures lead to the disinvestment of these major multinationals because it is easier and more profitable to do business elsewhere, it is highly likely that their substitution by second tier players may have the propensity to negate the intended consequences of the strategies mooted in the SIMS report. The direct benefit on the ground of mining company social programmes is often much more tangible to the beneficiaries than dispersed government imperatives. These are factors to be considered in this argument.

Returning to the document, it is fair to state that the diagnostic element to the report and the logical proposals to restructuring the industry to directly address the issues identified are commendable and ostensibly logical. However the sheer complexity of the measures proposed provide government with major challenges in terms of the national institutional capacity to implement them and will be of major concern to investors.

On the matter of more specific issues, the intention to declare a wide range of minerals as strategic minerals and assign them as critical feedstocks to the national economy with constraints on margin and exportability will have implications. While the cost-plus or export parity argument seems innocuous and fair, the fact is that the deterrent to the more profit-oriented and more efficient companies may lead to their substitution by less efficient operators which may operate at higher costs. Cost-plus or export parity arrangements through lower efficiencies, transfer pricing mechanisms, accounting manipulation and corruption provide significant obstacles to achieving this and therefore these measures may not have the



desired impact on lower cost strategic inputs. The proposal of a SARS-type agency to manage this may address these problems, but the efficacy of the measures remains questionable.

In summary, the proposals in the report for the state to support institutions that will make the industry more competitive are a highly positive aspect of the report and critically necessary. The means by which the report proposes to pay for these measures through the introduction of a resource rent might well be logical, but will impact on investor perceptions of the industry. The South African government cannot ignore investor issues in the proposals put forward here.

Finally, it is highly likely that the one proposal of the report that will gain traction will be the resource rent, and the manner in which this is to be implemented, on the one hand, and the deployment of the revenues derived from this rent, on the other hand, are the short term issues that need to be addressed with urgency. This includes consultation with all affected constituencies, including the key bureaucrats, investors, the treasury and the affected state institutions (universities, trading centres and science councils).

To achieve this, an urgent multi-stakeholder dialogue is necessary in order to provide critical input to the Mangaung policy discussion. These dialogues need to be interest-based and directed towards achieving convergence on the key issues raised in this document. There has to be a compromise between government and industry on these issues, and the achievement of this equilibrium of interests is of paramount importance in South Africa's political and economic future.

Overview

In 2010 the ANC's National General Council (NEC) took a resolution to interrogate the role of the state in economic development and within this context the question of nationalisation of South African mines. The State Intervention in the Minerals Sector (SIMS) study was consequently commissioned. Its mandate was to examine the extent to which the country's mineral wealth could be mustered towards job-creation and the direction of a more equitable economic growth path.

The proposals are grouped under

- ownership and control
- governance
- economic linkages (fiscal, backward, forward, knowledge and spatial)
- the regional dimension.

The points of departure for the study were The Freedom Charter (1955), the Ready to Govern document (1992), the Reconstruction and Development Programme (RDP, 1994) and the Polokwane Conference Economic Transformation resolution (2007). A key aspect of the study was the Polokwane resolution on South Africa becoming a developmental state that would adopt an active role in the strategic development of the economy, a fundamental component of which is the mineral and energy complex.

South Africa's mineral reserves, world ranking, 2009

Mineral		Reserves 2009			Production 2009			Estimated life (years)
		Tonnage	%World Production	Rank	Mass	%World	Rank	
Alumino-silicates	Mt	51 *		*	0.265	60.2	1	192
Antimony	kt	350	16.7	3	3	1.6	3	117
Chromium Ore	Mt	5500	72.4	1	6.762 *		1	813
Coal	Mt	30408	7.4	6	250.6	3.6	7	121
Copper	Mt	13	2.4	6	0.089 *		*	146
Fluorspar	Mt	80	17	2	0.18	3.5	5	444
Gold	t	6000	12.7	1	197	7.8	5	30
Iron Ore	Mt	1500	0.8	13	55.4	3.5	6	27
Iron Ore - including BC	Mt	25000	~10	*	55.4	3.5	6	451
Lead	kt	3000	2.1	6	49	1.2	10	61
Manganese Ore	Mt	4000	80	1	4.576	17.1	2	874
Nickel	Mt	3.7	5.2	8	0.0346	2.4	12	107
PGMs	t	70000	87.7	1	271	58.7	1	258
Phosphate Rock	Mt	2500	5.3	4	2.237	1.4	11	1118
Titanium Minerals	Mt	71	9.8	2	1.1	19.2	2	65
Titanium- including BC	Mt	400	65	1	1.1	19.2	2	364
Uranium	kt	435	8	4	0.623	1.3	10	698
Vanadium	kt	12000	32	2	11.6	25.4	1	1034
Vermiculite	Mt	80	40	2	0.1943	35	1	412
Zinc	Mt	15	3.3	8	0.029	0.2	25	517
Zirconium	Mt	14	25	2	0.395	32	2	35

Source: SAMI 2009/2010, DMR 2010; and Wilson & Anhaeusser 1998: "The Mineral Resources of South Africa", CGS Pretoria (for BC- Bushveld Complex)

The economic linkages examined were classified as follows.

- fiscal linkages including resource rent capture and the deployment of rents, which may include reinvestment in the sector
- backward linkages incorporating upstream mining suppliers of goods and services
- forward linkages encompassing downstream mineral beneficiation
- knowledge linkages including human resource development (HRD), and research and development (R&D)
- spatial linkages incorporating the use of mineral infrastructure
- local economic development.

The SIMS study refers to and incorporates the African Mining Vision³ commissioned in 2009 and recently signed in 2011 which moots strategies for optimising the impact of mining industry on economic growth and development on the continent. The Vision focuses on a knowledge-driven African mining sector integrating into a single African market through:

- downstream linkages into mineral beneficiation and manufacturing
- upstream linkages into mining capital goods, consumables and services industries

³ African Union 2009: African Mining Vision (AMV), Addis Ababa, February 2009



- sidestream linkages into infrastructure (power, logistics, communications, and water), and skills and technology development (HRD and R&D)
- mutually beneficial partnerships between the state, the private sector, civil society, local communities and other stakeholders
- a comprehensive knowledge of the continents mineral endowment.

The SIMS study undertook an evaluation of systems employed in a number of countries around the world including Botswana, Namibia, Zambia, Sweden, Norway, China, Malaysia, Australia, Chile, Brazil, and Venezuela.

Of importance, the SIMS study notes that because of transport and energy constraints South Africa has not benefited from the commodities super-cycle resulting from the Asian economic boom which it suspects may continue for another two or three decades. It quotes an HSRC economic model which estimates that a 30 % increase in mineral exports could generate up to 280 000 jobs in the country.

The study maintains that on the basis of a review on state ownership⁴ of the global mining sector that since the Second World War, strong demand and high commodity prices catalysed a global trend towards greater state ownership and share of mineral economic rents. This was followed by a period during the 1980s and 1990s of declining demand and falling prices in real terms. Juxtaposed with the break-up of the Soviet Union, confidence in central planning and state ownership had eroded and led to a move towards widespread privatisation of state-owned mines in Africa. Strengthening of demand since 2002 has again resulted in increasing strategies motivating greater state control and share of mineral rents.

Unsurprisingly, the study on state ownership finds both successes and failures closely related to the level of economic development in the countries examined. Key success factors stated for successful state ownership of mining companies are:

- clear distinction between the state as an owner and a regulator
- effective and unambiguous communication lines between owner and the company
- ownership not residing with the treasury
- high levels of transparency
- defined, workable and achievable developmental goals
- possible listing of state owned companies on securities exchanges.

Findings also address the fact that state ownership of mines was more prominent with certain strategic commodities such as iron ore, copper and bauxite (although bauxite is primarily sourced in Guinea Conakry).

The objectives of state participation are a blend of economic and non-economic objectives. State participation is typically intended to regulate the behaviour of private sector investors towards “the national interest” by:

- a) building national capacity in the resource sector through the transfer of managerial and technical skills and information from the private sector

⁴ State participation is broadly defined as a range of ownership from 100% equity, partial or carried equity arrangements or equity participation without financial obligation.

- b) addressing a wide range of development goals outside the resource sectors in areas such as job creation, value-addition, provision of social and physical infrastructure, and regional development achieving fiscal objectives from the generation of a higher share of sector revenues for the state through profits and additional taxes.

The report cites problems with state ownership as being:

- macroeconomic management
- governance in terms of the willingness of state-owned mining companies to subscribe to civil-society- and private sector led protocols such as the Equator Principals and the EITI
- funding of state participation has the propensity to draw resources away from other budget priorities
- commercial efficiency
- potential conflicts of interest between the commercial interests of the State and its regulatory role.

Structure of the report

As mentioned here, the report is rigorous and comprehensive, addressing a wide range of issues.

1. Objectives
2. Key success factors
3. Fiscal instruments
 - The Brown Tax
 - Resource rent tax
 - Defining costs for resource rent taxes
 - Excess profits tax
 - Corporate income tax
 - Profit-based royalty
 - Output- based royalties
 - Graduated price-based windfall tax
 - Specific royalties
4. State equity
5. Proposals for state intervention
6. Nationalisation as an option
7. The Resource Rent Model
8. The State-owned Mining Company
9. Strategic alignment of government departments
10. Backward and forward linkages
11. Granting of mineral rights
12. The Minerals Commission
13. Mineral rights conversion
14. Investment in State geo-knowledge
15. Mining health and safety
16. Mining and the Environment - Monitoring and Compliance Agency
17. Minerals and environmental impacts research
18. Developing the mineral economic linkages
19. Fiscal linkages
20. Beneficiation and forward linkages



21. Enhancing the strategic leverage of South Africa's minerals
22. The formation of a Super Ministry
23. Proposed tariffs
24. Declaration and classification of strategic minerals
25. Job creation strategies around strategic minerals
26. Backward linkages: mining inputs
27. Knowledge linkages
28. Mining-related infrastructure

Fiscal instruments

A key factor in the reduced motivation for state ownership of mining companies resides in the increased sophistication in resource tax regimes and the growing appreciation of the advantages of efficient taxation over equity participation as a means of raising revenues the state.

In particular, the study focuses on resource rents. These are surplus revenues from mining after the payment of all directly productive (exploration, development, and mining costs) plus the required risk-adjusted return on investment. The fundamental premise is that since rent is pure surplus, it can be taxed while upholding the principle of core taxation of neutrality.

The study importantly recognises that the substantial risks inherent in the mining sector need to be managed. These include:

- long exploration and project gestation periods
- large amounts of sunk and immovable capital accompanied by high levels of economic and political risk
- uncertain geological or commercial outcomes
- uncertain future revenues.

It states that these uncertainties and variables are compounded by:

- volatile and unpredictable mineral prices
- long periods of production ramp-up and operation to achieve break-even
- concomitant exposure to political and policy instability
- potentially significant environmental impacts requiring large costs on mine closure
- support to affected local communities.

It notes that these factors motivate measures such as accelerated depreciation and extended loss-carry forward limits, to hasten payback of initial outlays.

Mining is subject to a wide variety of fiscal instruments such as corporate income taxes, royalties, resource rent taxes, windfall taxes and forms of state ownership. These fiscal regimes vary widely between countries and contribute to the evaluation of country risk-adjusted rates of return. By nature of the surplus revenues constituting the rents, the lower the required rates of investor return, the higher the surplus and vice versa. So, surplus rents are by nature higher in countries with more stable political economies as the risk premiums for these countries are lower. Perceptions of value also play a role in the setting of these

rents and often the higher value commodities such as diamonds and gold tend to attract a higher royalty rate.

Production-based instruments are preferred by many countries as they are more easily measured and administered. As these instruments are biased towards company risk, lower overall levels of taxation are appropriate in these instances. Where government shares the risk through profit-related instruments or direct risk sharing through co-investment, higher rates of taxation are common.

Examples of state participation in mining

Country	Extent of state participation
Botswana	Diamonds negotiable, paid interest other minerals
Chile	100 % state-owned mining company in copper
DRC	5 % free carry, negotiated equity shares, 15 %-51 %
Ghana	10 % free carry, 20 % paid interest
Guinea	15 % free carry
Kyrgyz Rep.	Variable paid interest 15 %-66 %
Liberia	15 % free carry (ArcelorMittal only)
Mongolia	10 % local interests/50% Government ownership, regulatory carry 10 %
Namibia	Diamonds – negotiable, new state-owned mining company - Epangelo
Papua New Guinea	30 % paid interest (not all mines)
Sierra Leone	10 % free carry, 30 % paid interest
South Africa	26 % black ownership specified in legislation
Zambia	Minority interests

Adapted from a table sourced from McPherson, 2010

An increasingly common instrument is the ad valorem royalties based on production values as opposed to production volumes or product mass. These may incorporate sliding scales based on price, production, sales revenues and operating costs. However in the more industrialised countries with advanced tax administrations, there has been a recent shift toward profit-based royalties (most provinces in Canada, Northern Territory in Australia, and Nevada, USA) which attempt to more accurately assess and capture these mineral rents.

Many countries have also focused on income tax as opposed to royalties as the principal source of revenue. Corporate income tax provides the mechanisms to incorporate investment incentives such as accelerated depreciation allowances, loss-carry forward provisions and the full expensing of exploration costs. Other instruments applied are withholding taxes on dividends, interest, and offshore supplies of goods and services. These serve to counteract tax avoidance and evasion through the use of related party debt and transfer pricing in the payment these goods and services.

Finally, non-mining specific levies such as customs and excise duties, sales taxes and value added taxes supplement mineral rents reporting to government. Investment incentives may include exemptions from these levies and often include a zero rating on mineral exports or intermediate inputs.



Income tax on mining companies

Country	1983	1991	2008
Australia	46	39	30
Canada	38	29	22
Chile	50	35	35
Indonesia	45	35	30
Mexico	42	35	28
Papua New Guinea	36,5	35	30
South Africa	46 - 55	50 - 63	28
USA	46	34	35
Zambia	45	45	30

After Hogan & Goldsworthy, 2010

The study cites that it is because of the declining levels of taxation evident over the last two to three decades that countries are now re-evaluating their mining fiscal regimes. It outlines a number of fiscal instruments used in other countries that may be used in South Africa in its review of its own mining tax regime. These descriptions are drawn directly and paraphrased or quoted from the study (SIMS , 2012).

The Brown Tax

The Brown Tax (named after the economist Edgar Brown) is levied as a constant percentage of the annual net cash flow (the difference between total revenue and total costs) of a resource project with cash payments made to private investors in years of negative net cash flow. The Brown Tax is a useful benchmark against which to assess other policy options, but is not considered to be a feasible policy option for implementation since it involves cash rebates to private investors.

Resource rent tax (RRT)

Rather than providing a cash rebate, negative net cash flows are 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 (RRT). The RRT was first proposed by Australian economists, Ross Garnaut and Anthony Clunies-Ross in 1975, for natural resource projects in developing countries to enable more of the net economic benefits of these projects to accrue to the domestic economy. The economic rent in an economic activity is the excess profit or supernormal profit and is equal to revenue less costs where costs include normal profit or a “normal” rate of return (NRR) to capital. This NRR, which is the minimum rate of return required to hold capital in the activity, has two components: a risk-free rate of return, and a risk premium that compensates risk adverse private investors for the risks incurred in the activity.

Rent or profit-based taxes, have been recently adopted in some developing countries such as Kazakhstan and Liberia. A super-profit resource is due to be implemented in Australia in 2012. Specific royalties mainly apply to high-volume, low-value non-metallic minerals, particularly construction materials.

Defining costs for resource rent taxes

The concept of resource rent in the minerals industry applies over the longer term and takes into account the costs of:

- exploration
- new resource and reserve development
- resource and reserve replacement development
- direct production costs

Excess profits tax

The excess profits tax is the percentage of a project's net cash flow when the investment payback ratio (the R-factor) exceeds one. The R-factor is the ratio of cumulative receipts over cumulative costs (including the upfront investment). This method differs from the RRT in that it does not take explicit account of the time value of money or the required return of the investor. No excess-profits tax using the R-factor has been applied in the mining sector.

Corporate income tax

The key element of any fiscal regime is the corporate income tax. A higher tax rate may be applied to mineral companies within a standard corporate income tax regime, and it may be formula-based and designed to vary with taxable income.

Profit-based royalty

Profit-based royalty is the percentage of a mining project profit based on accounting treatment. This differs from the standard income tax in that it is levied on a given project rather than the holding corporate entity.

Output-based royalties

Ad valorem royalty (AVR) is where the government collects a percentage of a project's value of production. This is most often applied at a constant rate with the government collecting a constant percentage of the value of production from each project. From a government perspective, the main advantages of the AVR are revenue stability as the risk of fiscal loss and revenue delay are reduced compared with rent-based taxes. Administration and compliance costs tend to be lower.

However, it also serves to reduce the taxable revenue and hence expected profitability of a mining project and could compromise the viability of a project.

Graduated price-based windfall tax

Graduated price-based windfall tax is where the government collects a percentage of a project's value of production with the tax rate on a sliding scale based on price (that is, a higher tax rate is triggered by a higher commodity price).



Specific royalty tax

With a specific royalty tax, a government collects a standard charge per physical unit of production.

State equity

This can take the form of paid equity or carried interest in instances where the government elects to become a joint venture partner in a mining project. Paid equity on commercial terms is analogous to a Brown Tax where the tax rate is equal to the share of equity participation. In the case of carried interest, the government acquires its equity share in the project from the production proceeds including an interest charge. Carried interest is similar to a resource rent tax where the tax rate is equal to the equity share and the threshold rate of return is equal to the interest rate on the carry.

Fiscal instruments by country

Fiscal Instrument	Argentina	Australia	Bolivia	Botswana	Brazil	Canada	Chile	China	Ghana	India	Indonesia	Malawi	Mongolia	Mozambique	Namibia	Peru	Philippines	South Africa	USA	Venezuela	Zambia	
Royalties	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Corporate Income Tax		●				●	All developing countries at variable rates													●		
Additional minerals tax*													●	●								
Import duties						●	●			●						●					●	
Withholding taxes		●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

*Malawi has a 10% resource rent tax after-tax cumulative cash flows exceed 20%; Mongolia imposes a 68% resource rent tax when copper price exceeds USD 2600 per metric ton and gold exceeds USD 500 troy ounce based on the value of production

Existing fiscal instruments in the South African mining sector

A standard corporate income tax rate of 28% applies to the mining industry as does a 10% secondary tax on companies (STC). Royalties are a feature of the South African mining regime with the rate calculated on the basis of earnings before interest and taxation (EBIT) and gross sales. For refined minerals, the maximum rate is 5 % and for unrefined minerals, the maximum rate is 7 %.

Withholding taxes on dividends are not levied in South Africa but a tax of 10 % will be introduced in 2013 to replace the current STC. Once cash generative and taxable, mining companies are also allowed to deduct all capital expenditure incurred on an annual basis (as opposed to depreciation over a number of years).

Examples of other mining taxation regimes

Brazil	10 – 15 % withholding tax on payments made to persons resident or domiciled outside of Brazil, but 25 % for those resident in tax havens.
China	A resource tax (RT) is applied. The rate varies according to the type of mineral and is based on sales volume.
Russia	A Minerals Resources Extraction Tax (MRET) is levied at a rate ranging between 3,8 % and 8,3 % (depending on the type of mineral) based on the value of the extracted mineral.

PROPOSALS FOR STATE INTERVENTION

Objectives

The primary stated objective of the SIMS study is to maximise the developmental impact of minerals through labour absorbing growth and development by:

- generating and capturing the resource rents for social development
- investment in “long-term knowledge”
- investment in physical infrastructure
- industrialisation and economic diversification
- creating more jobs through maximising the mineral linkages (backward, forward and knowledge).

An outline of the key success factors as discussed by the SIMS study is:

- aligning economic policy development and implementation to the actual structure of the economy
- enhancing co-ordination between government departments responsible for minerals, energy, industrial development and technology
- building a mature economy off the minerals base through significant and sustained investment in technical knowledge, research and development
- enhancing dramatically the quality of science and maths education (such as training more engineers and technicians)
- improving all the economic linkages between sectors
- creating certainty, predictability and transparency with respect to the private sector’s participation particularly on property rights.

The study recognises that these objectives cannot be achieved without significant investment and risks in a partnership between the public and private sectors. It states that the public sector needs to deploy various instruments to facilitate the development of the sector to capture an equitable share of the rents generated.

Nationalisation as an option for state intervention

The SIMS study is unequivocal on its views on the nationalisation question by noting the ANC’s 1991 document “Forward to a Democratic Economy” succinctly states that although “...nationalisation might be

*The Rise of Resource Nationalism: Resurgence of State Control in an Era of Free Markets
Or the Legitimate Search for a New Equilibrium?*



an option, it could drain the financial and managerial resources of a new government, and therefore might not be manageable". The study refers to Section 25 of the South African Constitution. While, as in any country, expropriation is permitted for a public purpose or in the public interest, it is subject to compensation. It states this would be unaffordable as the cost to the state of acquiring 100% of listed and unlisted mining companies would be over one trillion rand. This exceeds the entire government budget of R1,3 trillion for 2012, and would compromise the country's fiscal sovereignty. In terms of protocols governing the Bretton Woods Institutions, to which South Africa is subject, it could result in the country being subjected to a Structural Adjustment Programme.

There is a potential loophole to the market-related pricing payment as the constitution states that compensation must be just and equitable. There has to be an equitable balance between the public interest and the interests of those affected, based on the market value of the property and the:

- current use of the property
- history of the acquisition and use of the property
- extent of direct state investment and subsidy in the acquisition and beneficial capital improvement of the property
- purpose of the expropriation.

A radical government could use the premise that the history of acquisition was distorted and that lower levels of compensation could be warranted given the inequities of colonisation and the apartheid regime. Also, as the expropriation primarily would be to improve the capacity of the state for social delivery, it could be construed to be in the greater public good that the state employs a restitutorial approach to its ownership of the mines on behalf of, and to the benefit of, the majority of the people.

The report states that in terms of the many bilateral agreements between South Africa and other countries, nationalisation would lead to "unmitigated economic disaster for our country and our people". The study proposes in general it is preferable to concentrate on rent share, (mineral-related) growth and development, and make targeted interventions to achieve the same outcomes.

It states that the nationalisation of mineral assets in line with the Freedom Charter was realised through the MPRDA in 2002 through the conversion of "old order" private rights to "new order" state rights. The report notes that nationalisation without compensation would require a constitutional change and would result in a near collapse of foreign investment and access to finance. It would also trigger widespread litigation by foreign investors would render the payment of compensation inevitable.

However, the study does not exclude nationalisation completely and surmises that nationalisation of targeted mineral extraction is an option for strategic monopoly-priced mineral feedstocks.

The resource rent tax model

The study envisages the introduction of a 50 % Resource Rent Tax (RRT).

A state-owned mining company

While virtually all the countries surveyed in the SIMS study have, or have had, state mining companies, the report recognises "a clear trend to privatise or corporatize these SOEs as the country becomes fully

industrialised and the need for an SOE diminishes”. An SOE in the SIMS report means a state-owned enterprise such as the Industrial Development Corporation (IDC).

State mining vehicles in developing countries tend to be mineral specific with copper and iron ore being the most common commodities exploited by state-owned mining companies. The report suggests that a South African state-owned mining company could be capitalised by transferring other capacity and existing state holdings from the IDC⁵ and Central Energy Fund (CEF)⁶. It suggests that such a company could be capitalised, resourced and run by the IDC as a subsidiary until legislation to establish it as a free-standing SOE is in place.

The company’s Board would be nominated by the IDC, in consultation with the Ministries of Mineral Resources, Energy, Economic Development, Public Enterprises and Trade and Industry to ensure alignment with national economic development, industrial and energy strategies and policies through its annual corporate mandate. It ultimately should be housed within a merged super-Ministry of the Economy but, in the interim, under the Ministry of Mineral Resources.

The company’s mandate should include the development of strategic minerals in partnership with other investors. Products should be supplied to the domestic market at competitive or utility prices. The company should have first right of refusal on all new state financed geo-data through the Council for Geo-Sciences. It should also be tasked with developing other minerals by co-investing with Broad-Based Black Economic Empowerment (BBBEE) enterprises, by taking a minority share and transferring skills.

A major element of its mandate should be to facilitate mineral knowledge linkages through appropriate investments into technical HRD and R&D. In terms of an ownership model for the company, a combination of state and union pension schemes might be an appropriate vehicle to control key mining companies. As state and union pension holdings already constitute a significant holding in many mining companies, these funds are managed by private sector fund managers, providing little direct influence on the part of the either the state or the unions.

To address this, union assets could be pooled into a more powerful special purpose vehicle formed with the express purpose of investing in mines while government could leverage its IDC and Public Investment Corporation (PIC) holdings into this or another vehicle. This SPV could be reinforced with the BBBEE holdings where appropriate.

This would permit the ANC and COSATU to pool their holdings to promote developmental outcomes in the companies concerned. To align state and BBBEE influence in mining companies to maximize the developmental impacts of these companies, a combined BBBEE and state minimum holding up to 30 % of voting shares could be introduced. In addition to this the Mining Charter could be amended to include state holdings such as the IDC, PIC, SMC, Eskom etc. as black empowerment partnerships.

Strategic alignment of government departments

The report states that the governance of the South African sectors is seriously compromised by the lack of co-ordination and strategic alignment between the Departments of Mineral Resources and Trade and Industry. It sees this as the primary reason for the lack of progress in realising the backward and forward

⁵ Sasol Mining, AMSA, Herculite, Impala, Merafe, Wesizwe, Hillside Aluminium

⁶ African Exploration and Mining Finance Company (AEMFC)



linkages and their job creating potential. The study perceives the existence of “a widespread practice of monopoly pricing of critical mineral feedstocks” into the country’s economy and the consequent loss of employment opportunities.

It believes that the creation of a ‘super’ Ministry of Economics, as discussed above would address and solve the current disarticulation of ministries and strategic economic objectives.

Granting of mineral rights

The study notes that in many countries hydrocarbon rights are granted through public tender but this is not common for solid minerals. This system has been mooted for the new Brazilian National Minerals Agency and the State of Victoria (Australia) which intends utilising the mine development plan as the basis for tenders. The study proposes that all (unallocated) known mineral deposits should be subject to public tender in line with the disposal of other state assets. Tenders could include variations to tax rates, and models for linkages (backward and forward). They could also cover investments in the knowledge base through education and training or research and development, and proposals that maximise the developmental impact of the property. This will obviously exclude MPRDA new order rights, which leaves little inventory in practice.

It proposes that exploration (prospecting) licenses should only be issued over areas where the Council for Geosciences (CGS) has determined that there are no biddable mineral assets in the license area. However, it envisages that partly known mineralised areas should be reserved for the state-owned mining company.

This would entail the country’s geological inventory being re-categorised into three types of geological terrains.

1. Areas with “Known” resources- for public tender against developmental outcomes, such as rent share (tax), infrastructure provision, backward and forward value-addition, knowledge (HRD and R&D) formation, and BBBEE.
2. Areas of “Unknown” mineral potential would permit Exploration (prospecting) licences with an associated resource rent tax and “Mining Charter” conditions.
3. Areas with “Partly Known” resources where the resource data is insufficient for an auction would become “geo-reserves” for further work by the SMC (State Minerals Company) and the Council for Geoscience (CGS), following which it would be reclassified as “Known” or “Unknown”.

The study proposes that the CGS needs to be mandated and adequately resourced to execute and effectively monitor all extant exploration (prospecting) licenses to ensure that the concessionaires abide by their minimum work and investment programmes (under the “use it or lose it” principle).

The study also suggests the use the existing PPP Unit in the National Treasury to form a dedicated national Concessions and Compliance Commission under the Ministry of Finance to oversee the concessioning of all state assets including minerals. It would serve as the regulatory and consulting body for the granting of rights by the line departments such as the Ministry of Mineral Resources.

Mineral concessions could fall under the jurisdiction of the proposed Minerals Commission with support from the Concessions and Compliance Commission.

The Minerals Commission

The study believes that the granting, monitoring and evaluation of mineral concessions has not been optimal with respect to development and job-creation objectives. It proposes the creation of a professional agency along the lines of South African Revenue Services (SARS) to manage mineral rights. The Minerals Commission would fall under the Ministry of Mineral Resources.

The primary function of the Minerals Commission would be to regulate the granting and administration of mineral rights to achieve the greatest benefit of their developmental impact. It would also be tasked with assessing which minerals should be designated as “strategic minerals”. This assessment would relate to both critical feedstocks into the economy and minerals where South Africa has a dominant share of global resources that could be leveraged to facilitate the establishment of backward and forward linkages. The Commission should ensure that these strategic minerals are exploited in an “orderly and optimal manner to satisfy national requirements, demand and pricing”.

Mineral rights conversion

The study believes that the “wholesale handing out of our nation’s known unexploited mineral assets (old order dormant rights), probably cost South Africa several hundred thousand jobs” and that the conversion of these to new order rights was fraught with irregularities. It proposes the establishment of a Presidential Mineral Rights Audit Commission to carry out a forensic audit on the granting of all New Order Rights, which would report within six months of establishment. Where such rights were improperly awarded, they should be suspended, but where the concessionaire had nevertheless made significant investments “in good faith”, they should be given a commensurate free-carry right in the consequent auction of the asset and, should this concessionaire be a BBBEE company, it should be given a first option on acquiring the outstanding portion of the 26 % BBBEE holding.

Capital gains tax on mineral rights

To discourage mineral right speculators the study proposes the introduction of an exploration (prospecting) right transfer capital gains tax of 50 %, payable if the right is on-sold or the company changes hands before mining commences. It surmises that this should encourage genuine mineral property developers rather than speculators (“flippers”). In addition, the MPRDA should be amended to stipulate that the proposed Minerals Commission must approve the transfer of any exploration right.

Investment in state geo-knowledge

The report notes South Africa spends considerably less on its geological surveying than many other countries⁷. It states that “dramatically” increased expenditure is required for basic geological mapping and categorisation of the nation’s unknown mineral assets.

It also wishes to prevent mineral asset “squatting” to ensure that prospecting right holders need to comply with committed work programmes subject to a tight “Use-it-or-Lose-it” regime.

⁷ Per capita spend on geological survey work in Finland (US\$11), Sweden (US\$2,4), Brazil (US\$0,8), China (US\$0,7) State-owned (US\$0.3)



Mining health and safety

The study proposes that the SIMRAC (Safety in Mines Research Advisory Committee) funding needs to be reinforced. The reason is the South African mining sectors historical record of mining fatalities and the recent trend of Section 54 closures⁸ of mines where fatalities or serious accidents have taken place and the high cost of fatalities. The research needs to align with building the backward linkages cluster to supply goods and services to enhance worker health and safety.

Mining and the Environment-Monitoring and Compliance Agency

Given that the mining sector is subject to a wide range of different environmental management statutes and regimes, the study proposes that Ministries of Mineral Resources, Environmental Affairs and Tourism should consider the establishment of a joint Minerals Environmental Monitoring and Compliance Agency.

Minerals and environmental impacts research

The report proposes that with due consideration to the potential long-term impact of acid mine drainage the government should introduce research, technology development programmes and training.

DEVELOPING THE MINERAL ECONOMIC LINKAGES

The study places significant emphasis on the sustainable economic development potential of the industry through the active planning and development of the backward and forward mineral linkages. It considers the five most important mineral economic linkages to be:

- fiscal linkages
- backward linkages
- forward linkages
- knowledge linkages
- spatial linkages.

ESTABLISHING FISCAL LINKAGES

The capture of resource rents

The study defines the resource rent as the surplus value the difference between the price at which a resource can be sold and its extraction costs, including normal returns. It suggests that these should be shared between the state and the mining company. Importantly, the study empathises that these rents should be efficiently reinvested to maximise long-term development.

It estimates that in the 2007/8 tax year the mining industry's average returns were excessive being:

- capital expenditure: 118 %
- equity: 33 %
- carrying value: 29%.

⁸ This involves the stopping of production for an average of a week

Higher carrying values are however recorded with certain minerals such as iron ore (126 %), manganese (114%), heavy mineral sands, titanium (120 %), and platinum (42 %) for the same period.

It proposes a Resource Rent Tax (RRT) of 50 % be imposed on all mining. This should trigger after a normal return on investment/s has been achieved, so not negatively affecting operations with marginal or low grade deposits. The Treasury Long Bond Rate plus 7 % is defined as the proposed RRT threshold. At the time of writing, the treasury long-bond was 7,7 % setting the RRT threshold at 15 %.

The SIMS study estimates that a RRT of 50 % would yield about R40 billion per annum at current prices. It further suggests that the RRT proceeds should be housed in an offshore Sovereign Wealth Fund (SWF) to offset the strengthening of the rand during commodity booms. On the current gold mining formula tax, the study proposes replacing it with corporate income tax plus the Resource Rent Tax. This would apply to all minerals.

Mineral royalties

The SIMS study states “Mineral royalties on production (turnover, revenue or sales) add to costs, increase the cut-off grade and sterilise the people’s mineral assets. Once we have imposed a RRT we should reduce mineral royalty rates to 1% of revenue (~R4bn/per annum) to enhance optimal resource extraction. However, the fiscal impact should be neutral by compensating the fiscus with an equivalent amount from the RRT (Fiscal compensation, below). The remaining Royalties should be ring-fenced and used to: (a) fund the Minerals Commission; (b) fund the rehabilitation of ownerless mines and remediation of historical damage (e.g. treatment of acid mine drainage); and (c) invest in local sustainable economic development (both mining and sending communities). These community allocations should be made by a joint board comprised of the Treasury, the Minerals Commission, the Unions (NUM), the State Minerals Company, and local government (municipality) representatives.” (SIMS , 2012)

Tax havens

A practice by transnational mining companies is to invest in Africa and other emerging economies via a subsidiary registered in a tax haven. The SIMS study proposes a Mineral Foreign Shareholding Withholding Tax to attract transnational companies to directly invest from their primary listing country. It further suggests that if the transnational mining company is held in a tax haven, then the rate should be raised to 30 %. If the investment is directly from the country where the primary listing is held, the normal rate of 10 % would be used.

Carbon tax

Best quoted from the study, SIMS says “The putative carbon tax as currently proposed by Treasury could be extremely damaging to our economy and should be put on hold. A carbon tax as currently configured would add to costs, increase the cut-off grade and consequently sterilise mineral resources. It could also potentially render many energy-intensive beneficiation operations unviable. The Carbon Tax should be reconfigured, possibly by having a higher RRT (above 50%) linked to carbon emissions and should also include a realistic basket of supply and demand side measures to reduce national carbon emissions.” (SIMS , 2012)



Deployment of resource rents

Sovereign Wealth Funds are increasingly being used around the world, holding over US\$4 trillion. The New Growth Path proposes the establishment of a Sovereign Wealth Funds which the report suggests be financed through a Resource Rent Tax. Keeping the resource rents offshore would mitigate the risks of Dutch Disease. The fund should be funded by the ring-fenced Resource Rent Tax (RRT).

Fiscal Stabilisation Fund

The fund would reduce revenue instability when commodity prices fall. Its purpose would be to stabilise mineral revenues to the fiscus in times of global downturns above a threshold (~30% of SWF). In the longer term, it would begin to build a resources future fund, to cover resources depletion.

Regional Development Fund

This would be used to invest in the Southern African Development Community (SADC) trade infrastructure which is currently impeded by poor or non-existent trade infrastructure. By 2010, SADC was South Africa's largest export customer for manufactured goods. "The Regional Development Fund would be spent "offshore" (SADC) thereby neutralising the currency appreciation impacts (Dutch Disease) of the RRT take that was previously being expatriated before introduction (~30% of SWF). Its mandate would be to:

- facilitate SADC inter-regional trade by investing in trade infrastructure. Only SADC companies (construction) would be eligible to tender for the funded projects
- open up regional markets for South African goods and services and for imports from the region
- enhance regional economic and political integration. Mechanisms should be devised to encourage other states to also contribute proceeds from resource rents to the fund." (SIMS , 2012)

A Minerals Development Fund

This fund would invest in the discovery and development of new mineral assets, the management of mineral assets, resources value-addition industrial zones as well as medium to long term human resources development and technology development in the minerals sector. Components of the Minerals Development Fund are listed below.

- State Geo-knowledge
- Exploration Facilitation Fund
- Minerals Human Development Fund
- Royalty Compensation Fund
- Minerals Technology Fund
- Minerals Beneficiation Hubs

Beneficiation and forward linkages

In addition to beneficiation, the industry could optimise job creation potential by concentrating on the feedstocks (mineral inputs) into the most important downstream job-creating sectors such as manufacturing, energy, infrastructure and agriculture. The key minerals for feedstocks for each sector are listed below.

1. Manufacturing: steel (iron ore), polymers (coal or oil/ gas), and base metals (copper, zinc nickel and others).
2. Energy: coal, gas, and uranium (also limestone for washing emissions).
3. Agriculture: PK-nitrogen (gas), phosphates, potassium, and conditioners (sulphur, limestone).
Infrastructure: Steel (iron ore), cement (limestone, coal, gypsum), copper.

Enhancing the strategic leverage of South Africa's minerals

The report highlights the strategic value of those minerals where South Africa has a dominant position in terms of resource base or current production. It earmarks platinum group metals, chromium, vanadium, manganese, alumina-silicates as possible candidates for local beneficiation.

The formation of a Super Ministry

The report refers to what it terms monopoly mineral feedstock pricing and the lack of articulation between the Ministries responsible for minerals, energy and industry. It states that the industry can be used to leverage mineral and other resources for minerals-related industrialisation and job creation. It emphasises that a co-ordinated and strategic economic governance for the country is required.

To achieve this it proposes the merger the Ministries of Trade and Industry, Mineral Resources, Energy, Economic Development, Public Enterprises and Science and Technology to more effectively “govern and transform the minerals-energy complex” and to facilitate the backward, forward and knowledge mineral economic linkages through the development of integrated cross-sectoral mineral strategies. The authors believe that this would serve to maximise their developmental impact. This is covered in more detail previously in this part of the executive summary.

Tariffs

Export tariffs

The study proposes the introduction of export tariffs intended to encourage beneficiation. This is premised on the assumption that the tariff would incentivise local value add. This proposal contravenes the 1999 South African–European Union trade agreement prohibits the use of export tariffs to European Union countries. Tariffs could however be used for unbeneficiated minerals which go to the East.

Infrastructure tariffs

These are intended by the authors to enable the competitive pricing of mineral feedstocks. The study suggests that the Ministry of Public Enterprises ensures the supply of *strategic* minerals into the economy on cost plus or Export Parity Pricing by instructing Transnet and Eskom to apply rail, port or energy surcharges to all mining and refining (including iron & steel) companies that practice what it terms monopoly or Import Parity Pricing.



Classification of strategic minerals

One of the key aspects of the report is the proposal that a range of minerals be classified as strategic minerals on the basis that they make a key contribution to the country’s economy or that they are fundamental to the proposed job creation strategies. Basically, a strategic mineral is one where the mineral in question:

- cannot be exported until domestic requirements are adequately catered for
- will have to be supplied into the market either at export parity pricing or on a government decreed cost-plus basis

Table 1 Schedule of Proposed Strategic Minerals

<i>Manufacturing</i>	<i>Agriculture</i>
Steel	NPK- nitrogen (gas)
Iron ore	Phosphates
Oil and gas	<i>Industrial minerals</i>
Polymers	Potassium
Coal	Conditioners
Base metals	Sulphur
Copper	Limestone
Zinc	<i>Infrastructure</i>
Nickel	Steel (iron ore)
Chrome	Cement
<i>Energy</i>	Limestone
Coal	Coal
Gas	Gypsum
Uranium	Copper

(SIMS , 2012)

Job creation strategies around strategic minerals

Steel industry

Referring to the importance of steel in the manufacturing industry, the study suggests that the steel sector is the only sector capable of absorbing the massive number of unemployed people in South Africa. The study believes that it is imperative that steel is supplied into the South African economy at export parity pricing as opposed to the current practice of import parity pricing. It proposes therefore that iron ore be classified as a strategic mineral and that mining licenses should obligate local sales on a cost plus basis. It singles out ArcelorMittal and states explicitly that this company should be obligated to apply export parity pricing on their steel products.

It proposes further that the state and the unions should form a special purpose vehicle to use their combined holding in (ArcelorMittal) to “champion developmental outcomes”. It moots that the cost of

increasing the state holding in Kumba from 13% to a controlling position of above 50%⁹ would be prohibitive.

To combat the practice of monopoly pricing in the steel industry, the study proposes the establishment of a new steel operator that would compete with ArcelorMittal and sell steel into the local market at export parity pricing. This would require the identification of iron resources that could be concessioned against the establishment of this enterprise. It moots that some 200 to 400 million tonnes of iron ore fines dumped at Kathu could be used for this purpose.

The study proposes lowering the price of scrap-based ferrous metals¹⁰ and non-ferrous metals¹¹ industries, by banning all exports of scrap.

Polymers (plastics)

The study states that the second most important feedstock into manufacturing are polymers (plastics) which are sold by Sasol into the local market at import parity pricing. As with iron ore it proposes that coal be classified as a strategic mineral, and mining licenses for coal projects should be obligated to supply local sales on a cost plus basis.

Polymer producers such as Sasol should be obligated to apply export parity pricing on their products. The study believes that consideration should be given to extending the liquid fuels price regulation regulated by the National Energy Regulator (NERSA) to polymers and other co-products such as nitrogen. As with the proposed steel special purpose vehicle, it proposes that the unions and the state collaborate in using their holdings in Sasol to control the company to direct its efforts towards economic development.

Base metals

Copper is a key component of appliance manufacturing and is an important feedstock into power infrastructure. The study suggests that copper should also be declared a strategic mineral with competitive pricing mining license conditions. As copper is a significant by-product of platinum group metal mining, this would impact on platinum mining licences.

Agricultural minerals

The study believes that agriculture and agri-processing have substantial job creation potential. Agro-minerals are commonly state controlled and nitrogen (ammonium nitrate) is the most important feedstock for fertilisers. This is produced as a by-product of coal and gas, and mainly by Sasol. In addition to nitrogen, phosphates are important components of fertilisers and for these regions both nitrogen and phosphates should be declared strategic minerals.

Strategic leverage from supply and resource dominance (“producer power”)

An example of this is China’s tight control of the rare earth market and its practice of export restrictions, effectively reserving use of the product for local usage. Botswana has used its sovereign position and shareholding in Debswana to coerce De Beers to move all of its sorting activities to Botswana.

⁹ Approximately R15bn

¹⁰ Mainly rebar

¹¹ Mainly brass and aluminium



The report states that as South Africa has 80 % of the global resources of platinum, and given the relative inelasticity of platinum supply and demand with as yet no viable substitutes, the country could use this position to negotiate local export conditions. As platinum is also regarded as a precious metal, it should be treated in the same way as gold in the country's Exchange Control Regulations. Effectively, this could lead to the control of platinum sales by treasury, as platinum sales would be subject to a treasury exemption certificate.

The country also has major global resources of chromium, vanadium, manganese, titanium and aluminasilicates which would be amenable to the development of a strategy to maximise the economic linkages associated with these metals. These metals therefore need to be considered for classification as strategic metals

Beneficiation pilot hubs

The report proposes that the beneficiation pilot hubs should also develop technology hubs through HRD and R&D consortia with universities, colleges, research institutes and companies. These hubs would be financed from the Minerals Development Fund, which in turn would be funded by the proposed sovereign wealth fund generated from the ring-fencing of resource rents. They would be managed on the same basis as existing IDZs but the study proposes that they should have Union representation on their Boards. It proposes that joint ownership should be vested with national government, provincial government and local/metro government.

Fiscal resources required for proposed pilot hubs

Description	Objective	Rxm/year
Adjacent international ports, inland port, airport (as per IDZs)	To facilitate exports and customs procedures (duty free zone)	N A
Close to areas with extreme unemployment: >60%	To target areas with greatest need for jobs	N A
Beneficiated resource-based products : >50% VA	To ensure real VA and not re-labelling or re-forming	N A
Resource industry inputs (capital goods & services) >50% VA	To ensure real VA and not re-labelling or minimal re-forming	N A
Exports: >50% of output exported (exemption for new products)	To discourage the relocation of existing industries	N A
50% CIT for 10y. After 10y- full CIT	To ameliorate capex servicing period (PRC SEZs: 30y at 1/2 CIT)	N A
Special IDC managed fund for capex: equity (<50%) & debt	Access to capital at concessionary terms	R 500
Infrastructure Integration Fund	To connect the investment to power, water, transport, telecoms	R 300
Labour flexibility: Exempt from applicable LRA clauses.	To rapidly adjust to changes in demand	N A
“Safety-Net” for labour under R100 000 per year, 90% for 1styear, 80% for 2ndyear, 70% for 3rdyear	To protect retrenched workers from loss of income (36m)	R 3 000
Automatic Re-skilling Scheme for retrenched labour for 3 years	To rapidly re-employ retrenched workers	R 1 500
Accommodation fund for migrant workers (family units)	To cater for unemployed in remote areas (as per PRC SEZs)	R 300
Technology Development Fund- 2:1 for “blue sky” innovation and 1:1 for brown-fields R&D, with the private sector	To develop appropriate new up- and downstream products & production technologies to enhance international competitiveness	R 400
Total for all 3 designated Pilot Hubs		R 6 000

Source: State intervention in mining study

Notes: VA: value addition; CIT: Corporate Income Tax (SIMS , 2012)

Backward linkages: mining inputs

Local content requirements

This would entail the further development of capital goods, services, and consumables to service the mining industry. The study proposes that MPRDA and regulations should be amended to permit the state to include local content milestones in all mineral concessions/licenses. It specifically mentions that measures need to be taken for what it terms “BEE Fronting for imported mining Inputs”, but does not give examples as to where this is happening. A regional market for mineral inputs would also assist in attaining economies of scale for many upstream industries.

The development of mineral technologies

The study proposes that the state should upgrade investment in the development of mineral technologies as a component of mining-related industrialisation.



Knowledge linkages

Discouraging the migration of technical skills

The report notes the crisis being experienced by the exit of South African engineering and science graduates. It proposes a state tertiary education subsidy of up to 70-80 % of full costs, the balance of which would be fees to be paid by students. This subsidy would be converted into a notional loan that will be written off over 10 years of employment in South Africa. The loan would be retired off at prime over 10 years by working in South Africa or for a South African company that is domiciled in South Africa and majority owned by South African residents but operating in Africa. If graduates decide to emigrate before the completion of the 10 year period, they will be liable for the full outstanding portion of the loan.

Technology development

The country surveys undertaken by the study revealed a strong correlation between investment in minerals technology development (R&D) and success in creating the important backward and forward mineral linkages and clusters referred to in the report.

R&D as a percentage of GDP in 2007

Sweden	3.60%
Finland	3.50%
Australia	2.00%
Norway	1.60%
China	1.40%
Brazil	1.10%
South Africa.	0.90%
Chile	0.70%
Malaysia	0.60%
Botswana	0.50%
Zambia	0.30%

The study notes that the country's technology development capacity is contracting and that this needs to be reversed by allocating a proportion of resource rents to both earth sciences research, and mining and mineral processing technology development. It believes that targets should be set for mineral R&D of 3 % of the sector's value addition.

It proposes the establishment of a mining technology Science Council along the lines of the defunct COMRO/Miningtek by amending the Mineral Technology Act of 1989 ("Mintek Act") to cover all activities from exploration, through mining and concentration, to smelting and refining. The new Minerals Technology Science Council that would incorporate Mintek and the remnants of Miningtek at the CSIR.

Mining-related infrastructure

Open access for privately held mining infrastructure

The report proposes that where there is under-capacity mineral-related infrastructure, to catalyse other sectors, it is crucial for the surplus capacity to be made accessible to third parties at “non-discriminatory prices” i.e. a cost-plus basis. This requirement would be reflected in mining licences.

Major mineral ore railway corridors

Adequate rail capacity for the transport of bulk commodities such as are critical for bulk iron ore, manganese ore and coal is an absolutely critical element of the minerals industry’s development. The study cites a preliminary economic modelling which indicates that a 30 % increase in mineral exports could generate up to 280 000 new jobs.

Because of the capital cost and maintenance of these facilities, the report proposes that consideration be given to joint ventures between Transnet and its users to upgrade the relevant lines. This would entail the users funding the expansion of existing lines with their rights being protected in a shareholders’ agreement. These joint ventures would contract Transnet to operate the lines. A condition precedent for such arrangements would be that the users would have to commit contractually to supply the domestic market on a cost-plus basis. In the case of coal, Eskom’s requirements for coal to assure security of supply would have to be met before export of steam coal.

In the case of iron ore, the study proposes a transfer of sufficient iron ore resources (500 to 1 000 million tonnes) back to the state to attract investment in a new integrated steel plant with a capacity that would compete with ArcelorMittal.

Further proposals include the possibility of a user concession with the following conditions.

- Pricing of ore/coal to domestic customers at cost plus, with an obligation on those customers to supply their coal-based products into the domestic market at cost plus prices.
- Transfer of mineral rights of selected strategic resources back to the state.
- Third party access to (surplus capacity) of the concession at non-discriminatory terms.
- The payment of an annual concession fee to Transnet to compensate it for the potential revenue foregone by the joint venture arrangement.
- The employment of all affected Transnet railway staff, with a 5 year retrenchment moratorium, and the servicing of all pension, health & other commitments.
- The continued servicing of other users at equivalent rates and conditions.
- The retention by of at least a 15% share of the concession to cater for “small-scale” users.
- The concession should be granted for the minimum period for economic viability at internationally benchmarked tariffs (10-15 years).
- All improvements/expansions will revert to Transnet at the end of the concession.

Minerals-related energy infrastructure

The study notes that the most important feedstock into power generation is coal and, for this reason, it should be classified as a strategic mineral. Eskom’s needs would have to be met before sales to other customers for export. Access to export rail and port terminal facilities would only be permitted once local power producers have been satisfied at cost plus a reasonable return. A certificate to this effect would



have to be obtained from the National Energy Regulator of (NERSA) whose mandate should be extended to regulate coal prices to power plants. The study suggests that the long bond rate plus 7 % should be considered. It proposes further that all unallocated or lapsed coal mineral rights of the appropriate rank for Eskom should be returned to the State.

Electricity constraints have historically also limited growth in the minerals sector, particularly with respect to downstream beneficiation in the ferroalloys and other sectors. The report suggests that the concessioning of select power plants to consortia of coal producers and electricity consumers may be considered provided that they commit to:

- expansion of minimum of 50 % of a plant's capacity over a 10 year period for supply to Eskom
- the supply to Eskom of this surplus capacity at cost plus 12 %
- an annual concession fee to Eskom to compensate it for the foregone potential revenue
- the employment of all the Eskom power plant staff with a 5 year retrenchment moratorium and the servicing of all pension, health and other commitments
- the direct supply to third parties would have to be with Eskom agreement and on non-discriminatory cost plus basis
- the concession should be for the minimum period to provide for financial viability
- all improvements/expansions will revert to Eskom at the end of the concession.

Gas-based power generation

The study refers to the extensive shale gas resources in the Karoo, and moots the possibility that these could ultimately replace coal-fired plants. Gas has lower carbon emissions than coal. It suggests that the state reserves the prospective shale gas areas for exploration and evaluation by the state Council for Geoscience and the Central Energy Fund. It notes the existing allocation of resources allocated to Shell and a few other companies.

Limestone for washing plants

Certain grades of limestone are required by for cleaning coal-fired power plant emissions. Deposits of these grades must also be declared as strategic and the mining licenses amended to stipulate cost plus pricing to Eskom. The report suggests that any unallocated deposits of the requisite grade must be reserved for Eskom and these grades should be classified as strategic.

Nuclear energy

The study states that South African Nuclear Energy Corporation (Necsa) is planning to reactivate nuclear fuel rod production and that uranium and thorium should be declared strategic.

Local economic development

The report states that a standard system to deal with local economic development and communities is inappropriate as the unique specifics of the different communities need to be taken into consideration. It recommends a pooling of resources by geographically clustered mining companies to maximise the development potential on the local communities. Mine closure plans should incorporate non-mining sustainable alternative economic activities.

Regional integration

The Southern African region (SADC) constitutes a relatively large market for intermediate inputs for mining and represents a rapidly growing sector. The opportunity to grow the backward and forward linkages into the supplier and beneficiation industries would be substantially enhanced by regional integration.

The study suggests that this could be enhanced by extension of membership of the Southern African Customs Union (SACU) and a reassessment of the relevant import tariff lines for “infant industry protection”. It also suggests that the IDC should develop viable industry investment linkages into other member countries to facilitate equitable benefits. This should be pursued together with the Regional Development Fund proposed by the study to be funded by the Sovereign Wealth Fund.

Regional power supply

The study estimates that the SADC states have in excess of 100GW of hydropower potential which could constitute an important carbon-free component of the South African energy mix. It proposes that most sustainable energy scenarios may lie with deepening regional economic integration.



SIMS indicative job creation guesstimates 2-5 years

SIMS Indicative JOB CREATION Guesstimates (400k to 1 million)
Intervention/Action (2-5y)

Job creation estimates		<i>Upper Limit</i>	<i>Lower Limit</i>
Remove Mineral Export Constraints: Increase in Mineral Exports	10%	95	50
	20%	191	100
	30%	286	150
Beneficiation value	10%	40	20
	20%	70	40
Local content	10%	20	10
	20%	30	15
Export Parity Pricing			
Iron & Steel		90	60
Polymers		80	50
Base metals		20	10
Cement/Imst.		20	10
Other (NPK)		30	10
Coal @ cost plus (reduce energy costs)		20	10
New HRD investment (teachers/bursars)		30	15
New R&D invest (license & SWF) & geo- survey		5	3
3 Pilot Beneficiation		45	20
Mineral Infrastructure Upgrades		4	2
Mineral Asset Auctions		55	25
State-owned Mining Company		15	5
Greater regional exports/imports		80	40
Regional trade infrastructure		6	3
PGM value added strategy		14	7
New Mines related to EPP steel project		100	50
Total Jobs Created x 1000		1186	705

Source: SIMS Team

(SIMS, 2012)

SECTION 1 RESOURCE NATIONALISM IN CONTEXT

Prologue

This study has been prepared as a knowledge platform and a resource to inform multi-stakeholder dialogues on resource nationalism. It has been prepared within the guidelines of the themes of the World Economic Forum Summit on the Global Agenda held in Abu Dhabi in November, 2011. The generic themes emerging from the summit were:

- resource scarcity
- new models
- multi-stakeholder dialogue
- knowledge platforms.

The study has been located firmly within the World Economic Forum (WEF) Responsible Mining Development Initiative (RMDI), which is the lead programme of the Global Agenda Council (GAC) for the Future of Mining and Metals of the forum. The Southern African Institute of Mining and Metallurgy (SAIMM) is a strategic partner to the WEF in the RMDI initiative and this document is the Institute's contribution to that programme. The resource nationalism knowledge platform will be hosted on the SAIMM website where the study and a large body of supporting literature and documentation will be placed. It will also be placed on the WEF Topline Platform, which is a collaborative platform and social media interface for the WEF Global Agenda Council community and the WEF Risk Response Network. Topline is designed to facilitate cross-community collaboration on key issues affecting geopolitical and socio-economic stability. Resource nationalism is a key issue in this respect.

The first part of the study is generic and based on international understanding and experience of resource nationalism and state participation in the mining sector through nationalisation of mines, indigenisation and developmental state participation.

The second section comprises a detailed case study on South Africa where there is a key political debate taking place about state participation in the sector and possible nationalisation of the country's mines. The outcome of this debate could have serious impacts on the country's economy and that of the southern African region.

South Africa has been selected along with Peru by the WEF Mining and Metals GAC as being a pilot for a multi-stakeholder dialogue. This study is intended to provide a common, non-partisan and comprehensive resource to inform all stakeholders in this critical debate. The study takes no advocacy position on the issues discussed.

Similar case studies for other countries, such as Peru, may be developed and added to knowledge platform on resource nationalism.

Finally, this study has been funded in the interests of stable economic development in emerging economies by Royal Bafokeng Holdings, the commercial arm of the Royal Bafokeng Nation, one of the most economically successful 'indigenous' mining communities in the world. Royal Bafokeng Holdings is an industry partner of the WEF and is represented on the WEF Board of Governors for Mining and Metals.



The WEF Responsible Mining Development Initiative (RMDI)

While this research piece is firmly located within the structure of the framework of the RMDI, there is one qualification. To date the RMDI has been more oriented towards the role of the company and its interface with government and society. However, this research places greater focus on the role of government, which provides the enabling environment for mining to expand or contract. The nature of this environment is, in turn, a function of political intent, policy and institutional capacity on the part of government. With increasing globalisation and the evolution of further stringent statutes and regulations mining companies are becoming more selective about where and how they operate. Central to this decision is the stability of the regulatory regime, which is, in turn, is a function of the political economy of the host country.

Mining, like any form of development, requires external investment. Foreign investment, where it is not politically strategic, tends to be neutral, seeking only to mitigate risk and maximise returns. To attract investment, governments need to ensure that at least average returns for the respective sectors are achievable, while protecting the interests of and enhancing the benefits to their own constituents.

The imperative therefore is to define and ensure a role for government within the context of responsible mining, as it ultimately shapes the environment in which mining companies operate. This document considers the issue of resource nationalism and government responses to the sentiment as a component of responsible governance and management of the sector.

The RMDI framework sets out a number of basic principles, through which to achieve responsible mining. These include progressive capacity building and knowledge sharing, stakeholder engagement and multilateral governance, and life-cycle transparency and accountability. Specific actions are detailed for the achievement of these principles, which can be applied directly to resource nationalism. Further information on these actions may be obtained from the World Economic Forum website¹².

¹² <http://www.weforum.org/s?s=RMDI>

Preface

Among the many problems facing the extractives sector in emerging economies, the increasing possibility of resource nationalism, indigenisation and nationalisation of the extractives industries is undoubtedly one of the major issues facing the companies in the sector and, as importantly, their investors.

There are cogent reasons for this development. Almost without exception, the resource-rich emerging economies have been the subject of colonial occupation and neo-colonial economic exploitation on the strength of their natural resources. Yet they remain among the poorer countries and continents in the world. With the economic rents generated by the sectors in these countries prone to abuse and inefficiently utilised by corrupt and/or incompetent governments, the people in these countries often experience little tangible benefit from their sectors. This has caused high levels of frustration among them, which is exacerbated by the high profile enrichment of their countrymen who have benefited from the industry and the often misguided perception that foreigners are yet again exploiting their resource wealth. The result of these sentiments is an increasingly aggressive call for the more equitable distribution of benefits from the industry.

As a result, there are multiple truths that are often extremely difficult to reconcile. This inevitably leads to emotive, rhetoric-driven and position-based debates involving multiple constituencies, each with their own legitimate realities and with little prospect of resolution outside of a highly structured, neutrally facilitated process.

Irrespective of the mineral rights regime adopted by a country, the natural resources of that country ultimately belong to its people. The stewardship for these resources is delegated to the elected governments and their appointed bureaucrats. It is not for this process to comment on or advocate any particular political approach to the management regime adopted by the elected governments. The intention is to help ensure that the decision makers within government understand the techno-economic and socio-economic implications of the options available, and are adequately equipped to make qualified and informed policy decisions.

In reviewing the instances of resource nationalism and its potential impacts on developing minerals-based or led economies, it is important to:

- understand the concept of resource nationalism and its dimensions
- interrogate the global repository of literature to establish best practice guidelines (what works and what does not work)
- contribute to this body of literature in an accessible, pragmatic and usable manner
- conduct a rigorous socio-economic study for a common understanding of comparative costs and benefits of successful forms of state intervention and the consequences of unsuccessful instances
- develop multi-stakeholder platforms to inform the debate at a national level
- endeavour to seek consensus between government, mining companies and other stakeholders as to the nature and extent of government intervention and the specific consequences for each stakeholder group
- make the terms and conditions of all written agreements between government and mining companies transparent and accessible to other stakeholders



- establish commonly agreed compliance monitoring and enforcement mechanisms
- develop and communicate effective conflict resolution mechanisms governing government intervention.

KEY QUESTIONS ABOUT RESOURCE NATIONALISM

This document will examine the following questions:

- what is resource nationalism?
- what are its drivers?
- how does it occur?
- where has it occurred in the past and what were the consequences?
- where is it evident today?
- what interventions can be made to mitigate the risk of economic damage to these countries that may result from government interventionist policies?

In addition, this document will attempt to address the following questions that are particularly relevant to South Africa:

- what is driving demands for nationalisation in South Africa?
- what are the objectives of the demands?
- how can these objectives be pragmatically addressed?
- what are the macro-economic, socio-economic and political consequences of these objectives?
- what is the optimal route to achieving a sustainable outcome that is accepted by the major stakeholders?
- how is this to be achieved without damaging South Africa's economy and undermining the government's ability to meet the social, economic and political agendas underlying the proposed intervention in the sector?
- does the South African government have the institutional capacity to manage the envisaged reforms successfully?
- how tangible will the outcomes be to the targeted benefactors?
- how does one balance the shorter-term political advantages to longer-term sustainable economic development?

Chapter 1 Defining the issue

In an age of resource scarcity, society as a whole must address the question of the efficiency of extraction and use of non-renewable mineral commodities. In response to demands by civil society, governments have imposed increasingly stringent regimes on mining companies with respect to environmental management and relationships with affected communities. In general, the mining industry has responded comprehensively to these challenges. Whether these interventions have been effective or not is debatable, as the mining industry continues to be vilified. The reasons for these negative perceptions of the industry need to be better understood before a more equitable dispensation of benefits from the industry can be mooted and discussed.

As the mineral resources in developed countries are gradually depleted, global extractive companies have shifted their focus towards minerals-endowed developing economies. At the same time, there has been a discernable trend towards increased resource nationalism, as local communities seek to protect their natural resources from further exploitation by transnational companies.

These developing countries look to leverage the economic benefits of their resources and seek recognition for their place in the global economic and geopolitical landscape. However, the objectives of resource nationalism can threaten critical private domestic and foreign investment in the minerals sectors of these countries and undermine profitable and efficient resource extraction. In addition, protective practices are often directed towards short-term political opportunism rather than the longer-term, sustainable economic benefit of the countries concerned. Corruption also takes its toll.

Where the private sector is perceived to be remiss in delivering optimal benefit to the state and its people, there is a tendency towards increased levels of state intervention. Irrespective of whether this is justifiable or not, ill-considered or badly managed interventions may materially damage mining-dependent economies and be counterproductive to the objective of alleviating poverty and conserving precious resources.

Any process directed towards increasing the delivery efficiency of state interventions needs to:

- fully and constructively address the issues in a specific multi-stakeholder engagement
- interrogate the relative economic efficiencies of the planned interventions
- openly and honestly confront the problems
- seek an interest-based consensus on solutions that will not undermine the economic health and competitiveness of the sector.

In instances where there is hostility between stakeholders, particularly government and industry, this is extremely difficult if not impossible to achieve. In such cases, government will strive to extract greater benefits from the sector, without acknowledging industry's limited capacity to sustainably deliver these benefits.

Given the increasing global scarcity of mineral resources, both mining companies and governments are being encouraged to adopt best practices to conserve the earth's scarce resources. Resource nationalism, if not managed and implemented appropriately, can be one of the most serious threats to resource scarcity. It is imperative to ensure that the extractive efficiency of scarce resources is enhanced, while accommodating the undeniable right of the people of resource rich countries to derive greater benefit



from the resources that belong to them. For this to occur, new models must be developed, as current models appear not to be optimally effective.

DEFINING RESOURCE NATIONALISM

Resource nationalism is an ill-defined concept. It is used in this study to describe the desire of the people of resource-rich countries to derive more economic benefit from their natural resources and the resolution of their governments to concomitantly exercise greater control over the country's natural resource sectors. The forms in which these sentiments and control mechanisms are manifested vary widely:

- outright nationalisation of private sector companies, with or without compensation
- limited nationalisation where the state holds equity in a privately run company with or without compensation
- state-owned mining companies
- resource rent and progressive taxation mechanisms
- developmental state models
- statutory indigenisation programmes.

Disparate as they may be, these options are not mutually exclusive.

In all forms, with the exception of indigenisation programmes, the state benefits (purportedly on behalf of the people). In the case of indigenisation programmes, host country citizens benefit directly from a transfer of ownership from the non-indigenous or foreign investors. However, all these forms of resource nationalism incur costs, which effectively erode or deter investment incentive to a greater or lesser extent. It is critical to clearly understand the tipping point for investor resistance.

A further factor in the uncertainty around the concept is the frequent semantic confusion between the terms *resource nationalism* and *nationalisation*, and between the term *nationalisation* and the concept of *state intervention*. As discussed before, resource nationalism is a popular sentiment that leads to state intervention. Nationalisation, on the other hand, is one form of a range of ways in which the state can intervene in a sector or industry. A further misperception is that state intervention is necessarily positive (populist rhetoric) or negative (industry free-market dogma). In seeking consensus, this must be qualified.

KEY TENETS OF THE ARGUMENT FOR RESOURCE NATIONALISM

There are a number of key drivers for resource nationalism:

- political doctrine on state ownership of natural resources
- the perception that the state can more efficiently unlock resources directed towards a developmental growth path that is more inclusive and equitable
- the political imperative for employment creation and facilitating higher levels of labour absorption
- a quest for value addition from the raw material produced through the promotion of minerals-related industrialisation
- leveraging the industry to enhance the strategic and fiscal capacity of the state.

State intervention will often be premised on the need to improve the efficiency of the resource sector when it appears that the private sector has failed to a greater or lesser extent to do this. In these cases, there is an innate and often misguided assumption that government can improve on private sector

efficiencies. This rationale typically ignores exogenous factors causing private sector failure and that these will also affect a government's attempts to improve the state of its poor people.

Where the efficiency of the sector is not at issue in an intervention, sentiments tend to be based on the perception that mining companies are reaping an unfair share of the resource rents or benefits of the sector. This is most likely to occur where there are high levels of inequality of income in the country hosting mining activity and mining is seen to exacerbate this disparity. In these instances, interventions become politically rather than economically motivated and economic benefit is subordinated to short-term political objectives.

With the attraction of a more egalitarian and equitable distribution of the industry's profits (as opposed to benefits), often little cognisance is taken of the contingent costs, responsibilities and liabilities accompanying state intervention. A balanced approach requires an informed, non-ideological debate as to the objectives and potential outcome of an intervention by the state, fully acknowledging the liabilities and responsibilities of the state when intervening in the industry.

There are other reasons for state intervention. Geopolitical leverage is often a feature in countries where the economy has an abundant source of supply of a mineral that is not commonly found elsewhere. Rare earths in China are an excellent example of this. Other motivations may include cases where a country seeks control of commodities of domestic strategic importance. This is often in the case of energy feedstocks (coal, oil and gas) or crop nutrients, where exports may compromise the interests of that country. This was seen in the recent refusal by the Canadian government to concede to the BHP Billiton takeover of Potash Corporation and the Australian government veto of major Chinese investment in its iron ore sector.



Chapter 2 Resource nationalism and state intervention in the mining sector

The legitimate rationale for resource nationalism is to provide for a more equitable distribution of benefit from mining activity. This seeks to provide a measure of restitution for, and a counter to, the long periods of exploitation of natural resources in cases where there has been a perceived inadequate benefit to the people of the countries hosting mining activity. It also provides for measures that are intended to enhance the country's economic capacity, and to diversify and grow its economy sustainability.

In countries with a colonial history of mining, the sentiment driving resource nationalism is founded in the post-colonial legacy of limited or no residual benefit. Africa, for example, has been supplying the world with minerals for over 150 years, yet remains the world's poorest continent. Since the 'rush' for strategic commodities in the mid-19th century, emerging economies in general and Africa specifically have been the global focus of resource supply and, as such, a global geopolitical playing ground. Colonisation was followed by decolonisation and the post WW2 quest, at contrition, through development aid programmes on the part of former colonial powers and their economic allies. These programmes have, on the whole, failed to redress the negative impacts of colonisation, creating, if anything, a culture of economic dependency on this aid.

After WW2, the Cold War was essentially about global economic power, which included control of strategic resources in the desperately poor post-colonial countries. The Cold War principals respectively supported anti-colonial liberation and other guerrilla armies, which were effectively proxies to the superpower principals. The wars were largely fought in African and Latin American territories at vast cost to the people of these territories and with little, if any, tangible benefit to them.

Between the gaining momentum of decolonisation in the 1960s and the fall of the Berlin Wall in 1980, little fundamental development took place, impairing the process of political liberation (Shivji, 1987). The military and economic support from the Cold War superpowers, the United States and Soviet Union, fostered the establishment and maintenance of undemocratic and corrupt dictatorships and one-party states. This hindered the course of democracy and the pursuit of economic development. The ideological battles for political influence in Africa were undoubtedly premised in part on the desire of the superpowers for control of strategic resources.

The fall of the Berlin Wall marked the commencement of a second phase of democratisation, which was focused on social and economic development that had been frustrated by the Cold War influences of the United States and Soviet Union supported regimes. This saw in an era of enhanced economic support from the west in which the World Bank-imposed structural adjustment programmes featured strongly. These programmes were a pre-requisite to financial and economic support from donor countries. The structural adjustment programmes had only marginal success and little impact on the development process. Many of these programmes led to the privatisation of mining assets in the countries affected. This may have contributed to the frustration of governments and citizens who saw private sector investors, who had acquired these assets usually on very favourable terms, making huge profits as the resource super-cycle set in.

There has been considerable academic debate on whether the deterioration in socio-economic conditions in Africa is linked to the lack of democracy in African political systems (Meyns, 2005). In his paper on economic development in Zambia, Meyns quotes Mkandawire (2005), who disputes the view that

democracy will necessarily lead to development and maintains that, in certain circumstances, authoritarian forms of political rule can in fact support development.

He maintains that democracy should not necessarily be tied to its possible developmental impact, but more to the “political rights (of Africans) to participate in shaping the future of their countries” and the effect this has on economic and social development, “particularly such development focused on equity and social justice.”

The relevance of this statement is that the africanisation of the mining sector in Africa is a fundamental component of resource nationalism on the continent. It is not always linked to logical economic development strategies, but rather to the fundamental right to ownership and the inalienable right of Africans to determine the manner in which their natural resources are utilised.

There is, however, consensus in this debate that successful democratic rule requires the accountability of leaders and decision-makers to mitigate the misuse of public resources to the detriment of developmental goals and enhance the stability of the political system. This is a key issue in the success or otherwise of state intervention in the mining sector.

Meyns goes on to quote Leftwich (Leftwich, 2000), who states that “no sophisticated institutional innovations nor the best-trained or best-motivated public service will be able to withstand the withering effects of corruption or resist the developmentally enervating pulls of special or favoured interests if the politics, autonomy and authority of the state do not sustain and protect them”. (Leftwich, 2000)

This aspect is central to the argument for or against state intervention in mining. However good the intention or sound the political motivation may be for increased levels of state intervention in the mining industry, its ultimate success lies in the implementation. Clientelism¹³ in the African polity, along with a widespread lack of institutional capacity in many emerging countries, is the most significant factor in countering the possible positive impacts of leveraging greater rents from the mining industry under the auspices of greater equitability of benefit distribution. In the case of South Africa, the country has a sophisticated regulatory regime, a well-resourced civil service and an independent judiciary, and yet the process of assigning benefit is a significant concern. The award of valuable mineral rights belonging to ArcelorMittal to Imperial Crown Trading (ICT), a company belonging to close personal and business associates of the family of the South African president, Jacob Zuma, is a case in point. The court case continues with the rights recently reversed in December 2011.

Ultimately, where state intervention is likely to be a political inevitability as may transpire in South Africa, the most productive format for such intervention would be that of a developmental state-type option as experienced by South Africa’s neighbour, Botswana.

It may be arguable whether Botswana is a developmental state, but then the notion of a developmental state is, like the concept of resource nationalism, imprecise. Whatever form the developmental state takes, a close, interest-based (as opposed to positional) relationship should exist between the private sector and the government for the model to be successful. This relationship is evident in Botswana and Brazil where state intervention takes full cognisance of the free-market economy. Where there is hostility between the state and the private sector, the imperatives are unlikely to be successful. By its very nature, a state tends to be more consumption than production-oriented and, to optimise the benefits to the state, private

¹³ The giving and receiving of favours



sector efficiencies within a state-driven economic policy are preferable. The fundamental requirement here is that there has to be sufficient commercial incentive for the private sector to stay involved in the process.

With regard to the mitigation of corruption as an undermining factor of successful state intervention, Meyns emphasises that governance is a key component of the development discourse in general and the poverty reduction agenda in particular. He states that, in the context of international development policy, good governance has come to mean greater efficiency in the management of public affairs through more accountability and transparency and the strengthening of the rule of law. Almost by definition, a successful developmental state requires an efficient and accountable public service.

Botswana's post-independence economic growth supports the fact that, given strong leadership, a poor country without the necessary institutional capacity is quite capable of developing this capacity. Botswana has been successful in developing a civil service that to a greater or lesser extent has been protected from undue political interference by the country's successive political leaderships (Meyns, 2005 and Holm, 1996).

Meyns also quotes Hyden's observation that development involves the creation of viable structures of governance that involve the private and voluntary sectors, as much as the public one (Hyden, 1990). Inputs from and the consensus of the private sector and civil society are fundamental to any state intervention model if it is to be successful.

Meyns concludes with a comment that in countries with weaker developmental profiles, there has to be a balance of power in the dialectical relationship between developmental performance and what he terms the three clusters of power: the state, civil society and international donors. In stronger, more diversified economies, such as South Africa, that are not dependent on donor aid, the role in this tripartite power base of international donors is replaced by the international investment community, who have the discretion as to whether to invest in a country or not.

In summary, any proposed increase in state intervention in the mining industry must be based on a number of key factors:

- a clear strategy and detailed plans as to what form this intervention is to take to contribute to poverty alleviation
- precise mechanisms as to how the increased rent extracted from the industry is to be utilised to achieve the objectives of the imperative
- strong political leadership that will ensure good governance of the process
- strong institutions within the bureaucracy, which will prevent or at least mitigate the negative influences of patrimony and corruption on the process
- experience of other countries, particularly those with geographic, political and economic synergies with the subject country (Botswana, Zimbabwe and Zambia in the case of South Africa). However, other international experiences that can be extrapolated to the subject country are also of critical value
- a close and co-operative relationship between the state, private sector and civil society.

RESOURCE NATIONALISM AND NATIONALISATION

One of the features of decolonisation is that post-colonial nations tend to combine class and ethnic divisions. This typically occurs with periods of unbridled private accumulation, which results in the perceived (and real) enrichment of particular racial or ethnic groups, usually those associated with the ruling ethnic grouping. In instances where minority enrichment takes place in either a colonial or post-colonial society, this enrichment provides a focus for political mobilisation and for the creation of nationalist movements seeking majority empowerment. Often this source of minority wealth is derived from the resources sector and in these instances the resources sector, perceived by the majority as the source of the minority wealth, becomes the focus of the nationalistic sentiment. This has occurred and, to a certain extent, is still occurring in South Africa.

There is a common misunderstanding of the political motivation for nationalisation. In cases such as South Africa, the ANCYL call for nationalisation takes the form of stereotypical rhetoric. However, Amy Chua argues that, in developing countries, nationalisation has mostly been an expression of nationalism rather than socialism. This nationalism has been directed at foreigners (usually “Western Imperialists”) but also at the “foreigner within”. In the case of internally directed nationalism, Chua refers to the labelling of specific ethnic or racial groups as being exploiters (of the people). (Chua, 1995)

In the case of South East Asia, Chua notes that the “double targeting” of foreigners and “foreigners within” has resulted in a proliferation of slogans such as “Malay-Malaysia”, “Thailand for the Thai”, and “Filipino First”, at the expense of national ethnic minorities. In Latin American countries, nationalisation movements have included anti-elitist and anti-aristocratic elements, and in Africa, European settlers, Indian minorities and historically privileged African ethnic groups.

This emotive rejection of foreign and “internal foreign” capital and skills typically results in capital shortages and skills crises and ultimately results in a forced return to such foreign capital and expertise. Often the “foreigners within” are the descendants of colonial groupings who have become integral to the society and economy of the countries within which they now reside. South Africa and Zimbabwe are good current examples of this sentiment. However, other indigenous minority ethnic groups are also targeted where it is perceived that they are differentially advantaged, be it through acumen or political connection.

These factors have encouraged nationalisation-privatisation cycles. It is significant that these privatisation-nationalisation cycles have occurred most frequently in the natural resources and utilities sectors (Kobrin, 1984), (Chua, 1995) and (Chang, R, Hevia C, et al, 2010). In their working paper, Chang *et al* argue persuasively that oil, minerals resources and monopoly utilities offer easily accessible forms of economic rent, which can be tapped for a variety of political and economic purposes.

A number of factors increase the likelihood of nationalisation of mineral resources and oil.

The extraction of resources involves a combination of large sunk capital and significant current rents, which makes nationalisation extremely tempting in the short to medium term. Second, non-renewable natural resources generate emotional attachments in societies that are “rooted in the soil,” and their exploitation is perceived as a one-off extraction of wealth. As Duncan shows in his investigation into the causes of expropriation (Duncan, 2006), demands for expropriation increase and are more often acted on when the price of commodities rises. Nationalisation of natural resource industries therefore usually occurs when commodity prices are high.



Another feature of high commodity prices that attracts popular attention are the windfall profits that accrue to private companies. While these profits are usually consistent with the legal contracts between these companies and the host governments, these windfall profits nevertheless become contentious. Invariably, these companies are either foreign or belong to “internal foreigners”. This discomfort for policy makers increases when formerly state-owned mines are privatised in advance of a commodity boom, which results in a significant increase in economic rents that revert to these private companies at the perceived expense of the state.

A further factor of extended commodity price booms, such as the current commodity super-cycle which is driven by growth in the major Asian economies, is the strengthening of exchange rates resulting from the export of minerals. This can result in ‘Dutch Disease’ and associated de-industrialisation in the non-mining sectors (the high exchange rates caused by mineral exports render manufactured goods uncompetitive). This negatively impacts on economic diversification and therefore the economic health and sustainability of the host country. In their paper on the impact of the Asian-driven resource boom in Africa, Breisinger and Thurlow maintain that, if mining assets are in private and foreign hands, the costs of rising exchange rates are borne by the non-mining economy¹⁴, while profits are largely remitted abroad to foreign companies. (Thurlow J and Breisinger C, 2008.)

Finally, various other factors may increase political pressure for nationalisation: the prevalence of societal inequality, and the presence of “faulty public institutions” that erode the rule of law (Chang, R, Hevia C. et al., 2010).

THE CYCLICITY OF NATIONALISATION AND PRIVATISATION

Nationalisation is the most dramatic manifestation of resource nationalism. Nationalisation is the transfer of ownership of an asset or industry from the private sector to the public sector, while privatisation is the transfer of such an asset from public to private ownership.

Over the past two decades, many observers have viewed nationalisation as a historical trend. Considered over the past century, however, it is clear that nationalisation and privatisation have been locked into cyclical patterns in most societies (Kobrin, 1984), (Chang, R, Hevia C. et al., 2010). Struggles between proponents of nationalisation and privatisation in developed countries, such as France and the United Kingdom, have been extensively chronicled (Hall, 1986), (Helm, 1989). Less well known are the nationalisation-privatisation cycles that have characterised regions such as Latin America, southeast Asia and sub-Saharan Africa. As Chua observes countries in these regions “have been cycling back and forth between privatisation and nationalisation for as long as they have been independent.” (Chua, 1995)

The first Latin American nationalisation programmes were in Mexico, Argentina, Brazil and Peru, and followed each country’s independence in the late 19th and early 20th centuries. The cycle continued with waves of privatisation and then further periods of nationalisation. The privatisation trend of the 1990s in most Latin American countries was the fifth phase of a privatisation-nationalisation cycle. (Chua, 1995) Southeast Asia remained under colonial control until the 1950s, at which time the colonial free trade economies were replaced by post-independence nationalisation events.

These were again followed by subsequent privatisation in the 1990s in countries as diverse as India, Indonesia, Sri Lanka and Myanmar. Almost every country in the region has now been through two or three

¹⁴ Manufacturing and services sectors.

cycles between privatisation and nationalisation (Chang, R, Hevia C. et al., 2010). In Africa, sub-Saharan Africa experienced a post-colonial wave of nationalisation and indigenisation in the 1960s and early 1970s (Rood, 1976), followed by a strong trend towards privatisation in the 1980s and 1990s (Adams & Mengistu, 2008).



THE ECONOMIC THEORY AND ASPECTS OF POLICY GOVERNING RESOURCE NATIONALISM

Economic theory offers ambivalent guidance on ownership policy. The conventional economic arguments in favour of nationalisation all lack precision. These are typically:

- creating “essential” infrastructure
- reducing inequality
- controlling natural monopolies
- curtailing market price volatility
- protecting employment
- regulating quality
- providing public goods
- exerting macro-economic policy influence.

All of these justifications for nationalisation are at best contingently, and often only tangentially, related to questions of ownership.

Yet, even during the privatisation wave of the 1980s and early 1990s, widespread political assertions about the desirability of privatisation were equally intellectually insecure. As Mayer observed at the time, the superior productive efficiency of private over public companies has not been demonstrated by empirical studies. While competition is fundamental to free market principles, market conditions may dictate the formation of private sector monopolies as seen during the wave of privatisation in the 1980s and 1990s (Mayer, 1990).

In privatising a country’s natural resource assets or the companies that exploit these, political leaders found revenue generation to be the key attraction. The sale of public assets helped governments to escape public borrowing constraints. However, inadequate accounting conventions in most countries inflated privatisation receipts and failed to account adequately for future revenues that were lost as a result of these privatisation policies.

When development economics emerged as a discipline in the 1940s and 1950s, its founders were influenced by the experience of the Great Depression, the successful industrialisation and war performance of the Soviet Union, and a Keynesian revolution that emphasised market failure and active government (Lewis, 1954), (Myrdal, 1957), (Hirschman, 1958). The structuralist approach to economic development that became the development orthodoxy from the 1950s demanded an active state to accelerate economic development, overcome market failures and allocate resources for investment. This approach found a significant role for state-owned enterprises.

Such intellectual support for interventionism was reversed after the anti-Keynesian revolution in macro-economics in the late 1960s and 1970s, the collapse of socialist economies in the latter half of the 1980s, and the emergence of the ‘Washington Consensus’ around the merits of economic liberalisation, privatisation and fiscal stabilisation programmes. In recent years, the experiences of the newly industrialised economies of east Asia have resurrected interest in the role of the state and state-owned enterprises in economic development.

In summary, economic theorists have not provided stable or consistent advice to policy makers with respect to the levels of state intervention in the natural resource sectors or the success and desirability of state-owned companies in the sector. They are unlikely to do so in the current climate of resource nationalism.

THE STRATEGIC IMPERATIVE FOR STATE CONTROL

There are three principal factors behind a government striving for control of their minerals sectors:

- domestic political ideology
- geopolitical or economic strategic leverage
- opportunity to garner a greater share of mineral resource rents.

There are substantive differences in a government's strategic perception from metal to metal, mineral to mineral and mining as a source of supply as opposed to smelting and refining. Even in the smelting and refining sector, there are different strategic perspectives between the imperative to add value and the need to provide critical feedstock to a manufacturing sector, as is in China.

In the 1960s, during the height of the Cold War build-up and the rise of socialism in the west, the political climate was generally oriented towards state intervention. However, socialism was not necessarily the driver. The Chilean process, for example, was initiated from the centre-right nationalist government and resulted in the establishment of Codelco. In South Africa, ISCOR, Sasol, Foskor and other large companies were established by the Apartheid government. In southeast Asia, tin resources were nationalised in Indonesia following its independence from the Netherlands. Importantly, in terms of the efficacy of state ownership and control, the Indonesian operations survived with state support after the tin crash in the mid-1980s when most tin mines around the world closed down.

State control over aluminium production is considered highly sensitive because of its importance in the aircraft industry, military technology and packaging industries. In the United States, the aluminium industry was subjected to state control during the Second World War and some of the major companies in the post war period, such as Kaiser, owed much of their growth to state protection and intervention during the war.

High levels of state control in the energy sectors are common in most countries. Iron ore is of critical strategic importance to infrastructural development and to consumer products. Iron ore mines have been nationalised, not only in developing economies, but also in countries such as Sweden and other European countries. On the other hand, apart from its value as an economic hedge and a currency underpin, gold has very limited strategic industrial use and consequently the level of state control has been low.

There is nothing new about state ownership of mining companies and, contrary to popular perception, it is not purely the domain of socialist politics or demand economies. The forms of state control are as variable as the countries in which they are found, which include Russia, China, India, Africa and other emerging countries. The cyclicity of nationalisation and privatisation juxtaposed with political fashion places constraints on the lessons learned from other incidents of state ownership. These outcomes are nevertheless instructive.

A factor that is underplayed in many of the analyses of nationalisation is that of the metal type and its strategic significance. Zambia, for example, had a large influence on the copper market at the time of the nationalisation of its mines. The government of the time undoubtedly felt that its control over this strategically important industry would provide it with a significant geopolitical advantage.

China's interest in Africa is clearly strategic. It is unsurprising that the governments of countries targeted by China would wish to strengthen their sovereign advantage in relations with China by exercising as much control as possible over the targeted minerals within their respective jurisdictions.



Differentiating ownership from control

In defining the concept of state control, ownership has to be differentiated from control. Ownership encompasses a defined equity position in a company and is easy to determine from the share register of a company. Control is far more diffuse a notion as it is vested in many ways and is difficult to measure in terms of direct economic benefit to the state. Control comprises direct and decisive action on the part of the state on strategically important imperatives and issues. These range from influencing or directly dictating industry and company policy to interventions in large investments (such as the Australian government's intervention in the Chinalco Rio Tinto transaction and the Canadian government's veto of the BHP Billiton Potash Corporation deal).

Governments can dictate management structures, as in South Africa in line with transformation objectives. Control does not necessarily mean equity, direction or management. Control can also be exercised indirectly through long-term contracts, marketing regulations, proprietary technology developed by state research entities and with restrictions on distribution, and state finance assistance through grants and subsidies.

However, state intervention typically implies a level of ownership. Outside of direct ownership, every state exercises a significant level of control and derives considerable financial benefit from companies through policies, laws and taxation regimes.

Nationalisation in market economies compared to centrally planned economies

Using equity as the basis for defining state control in this discussion, there are important distinctions in the generic manner in which companies are nationalised in market economies, as opposed to centrally planned economies.

Centrally planned economies would include Albania, Bulgaria, Cambodia, China, Soviet Union, Cuba, Czechoslovakia, Germany, Hungary, Mongolia, Korea, Poland, Romania and Vietnam. These countries all adopted socialist ideologies during the Cold War period. Post-Cold War and current centrally planned economies include China, Cuba, Democratic People's Republic of Korea, Laos, Mongolia and Vietnam.

Some current generic characteristics and influences of state intervention include:

- a high level of state control over strategic metals and minerals
- heavy weighting of state's proportion through the extraordinary growth of Chinese state-controlled mining companies which are expanding both in China and abroad
- moving rapidly away from centralised control while they are subject to government's economic strategy and foreign policy. This is being seen with Chinese state-owned enterprises behaving increasingly like private sector mining companies than parastatal companies
- state control tends to be proportionately higher for refining than mining. This is undoubtedly due to the imperative of many countries to add value to their mineral stock by promoting beneficiation
- privatisation of mines is more common in the market-oriented countries than in centrally planned economies
- governments of resource endowed countries are actively seeking means of extracting greater revenues from mining and smelting with the commodity super-cycle continuing after the global

financial crisis of 2008. This has led to a spate of revisions of tax regimes and the quest to renegotiate tax stabilisation agreements with companies

- state-owned mineral development companies are being formed to advance exploration and development. This is much in the same way as junior mining companies operate, by making discoveries and driving them up the value curve before selling them on to larger companies for mine development. These state-owned entities are structured to co-operate and co-invest with private companies in high-risk, longer-term projects.

Historical recap of nationalisation

The first large scale nationalisation programme accompanied the Bolshevik revolution in Russia. As an industrial and agrarian revolution, the Soviet mining and metal sectors were prioritised and fuelled the rapid industrialisation of the demand economy put in place by the Soviets.

In the pre-Second World War years, the output of metals in the Soviet Union dominated state-owned production globally. After the Second World War, the Eastern European countries followed the same development path as the Soviet Union. This radically affected the share of total world production controlled by state-owned companies in Eastern Europe and the Soviet Union. Most industrial minerals were mined with the exception of bauxite, which tends to occur in tropical environments. During the 1970s, these countries controlled approximately 20 - 25 % of global production of most base, ferrous and industrial metals and minerals.

State ownership in the Western world then gained traction after the Second World War into the late 1940s and 1950s, as state-led post-war economic reconstruction required public funding. European countries such as Finland, Sweden and Norway led this process. In Finland, Outokumpu, which had been founded before the War, began to grow rapidly. The Swedish government privatised LKAB (Luossavaara-Kiirunavaara Aktiebolag) in 1956, although this move was premised on a parliamentary decision taken in 1906. Nevertheless, despite these developments in the Western World, state-owned mining remained weighted towards the centrally planned economies.

Decolonisation in the late 1960s and early 1970s ushered in a new wave of nationalisation in newly independent countries, whose governments saw mining as the driver for post-colonial socio-economic development. During the 1960s, there were 32 expropriations of foreign mining companies in these countries and, during the first half of the 1970s, 48 companies were nationalised.

The quest for state control of mines continued into the mid-1980s in both developing countries and the developed countries. Examples were the socialist government in France taking over large parts of industry, including the mining and metal industries such as the aluminium producer, Pechiney, and nickel miners Eramet/SLN.

State-control limited the investment by multinational mining companies into many emerging economies to minority holdings and non-equity offtake arrangements with state-owned companies. However, at the end of the 1980s, the trend reversed as a result of the changing political climate, and the development of free market thinking. During the 1990s and early 2000s, metal prices continued to fall with a decline in the minerals sector. This, juxtaposed with the ineffectiveness and poor management of the state-owned companies in many developing countries and the failure of structural adjustment programmes after large-scale defaults by these countries, led to a spate of privatisations.



Privatisation was not only a feature of the post-colonial emerging economies. Prior to the collapse of the Soviet Union in 1990, production by state-owned companies globally was in the order of 40-60 %. After the demise of the Union, metal production plummeted as demand from the military complex ceased almost overnight. Mining companies were privatised and came under the control of the Russian oligarchs. As Russia integrated into the global market economy, production has improved and the industry is now almost completely privatised.

China is very different to the former Soviet Union, as there are different layers of state control at national, regional and local levels. The opening up of the Chinese economy has seen gradual changes and the introduction of private ownership.

State ownership shares of global metal production

State control globally has decreased considerably since its peak in the mid-1980s, but it is not a phenomenon of the past.

Strategic control over individual metals is interesting. In 2009, state-owned mines produced 17,6 % of global gold production, while 21,5 % of nickel mined was state produced, as opposed to 17,1 % of refined product. It is interesting to note that, for both nickel and lead, the levels of state control are constant or increasing for both free market states and for China. Ironically, tin has the highest level of state control at 54,3 % in 2009 but, in terms of economic significance, aluminium also has in excess of 50 % state control and the total value of aluminium produced far exceeds that of tin. State control for coal is also high at 52,5 % in 2009.

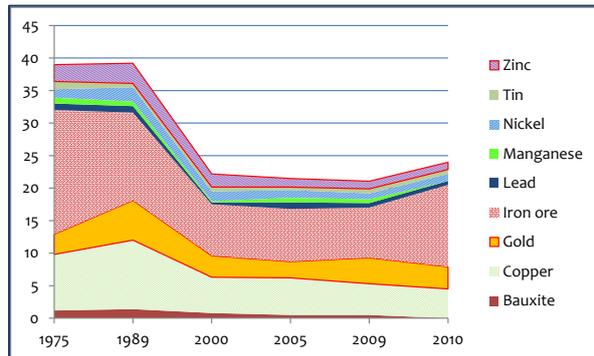
The decline was halted in the mid-2000s, but state control in mining started to increase again with the growth of Chinese mine production, reaching 24 % in 2008. This trend will most likely continue as a result of the Chinese policy to increase its control over the supply of natural resources, both domestically and through mines abroad, based on control through ownership. It is quite possible that some production capacity will be closed within China in the next few years because of high costs. The mines in China are often small, based on low grade deposits and perform poorly in regard to health, safety, and environmental standards. This shutdown is already occurring in iron ore but this decline will be counterbalanced by increased foreign-based, but Chinese-controlled production.

The situation is very different for the refining industry. Total state control of metal refining has increased for all minerals and Chinese refining similarly accounts for the bulk of this growth. For all the minerals analysed, Chinese state ownership is increasing. In the free market economies, state share declines for all minerals, except for nickel and tin where the level is constant. Total state control varies from only a third of the peak level for nickel, to around 75 % for copper and alumina, while it is roughly the same or higher for aluminium, zinc and tin. State control is generally higher in refining than at the mine stage.

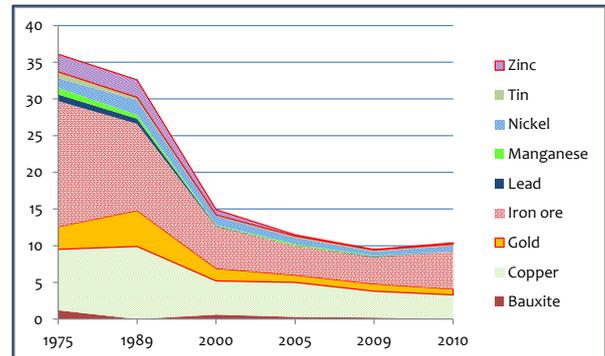
Coal is not included in the discussion above as it is an energy mineral and, as such, has different characteristics from the other metals. Coal, however, demonstrates a similar pattern of state control over time as do the metals. The level of state control into the late 1980s was over 60 % and underwent a sharp decline in the 1990s with the fall in production in the former Soviet Union. This was followed by a resurgence in state control in the early 2000s to a fairly constant level of just over 50 % at present. The Chinese state almost completely dominates the coal sector in respect of state ownership of production.

State shares of global metal mine production value (% of total value) including China AND

State shares of global metal mine production value (% of total value) excluding China



Source: Raw Materials Group, Sweden



Source: Raw Materials Group, Sweden

The above figures provide a chronological profile since 1975 of the historic fluctuation in state ownership of global metal production, including and excluding China. The two scenarios presented by the numbers paint different pictures and clearly demonstrate the extent of China's domination from a control rather than just a market perspective.

The numbers are aggregated for nine metals, viz bauxite, copper, gold, iron ore, lead, manganese, nickel, tin and zinc, which together account for between 85 and 91% of the value of all metals produced each year. In 1984, total state ownership as a percentage of the value of global metal production was 46%, an increase from 39% a decade earlier. By 1989, the levels of state-owned production had reverted to 39% and continued to decline to 22% by 2000, precipitated by the collapse and privatisation of mine production in the former Soviet Union in 1990.

China makes up a considerable proportion of the contribution of state-owned production today. When it is removed from the equation, a very different profile emerges. In 1975, China made a net difference of only 3% to the proportion of state-owned production. Twenty-five years later, by 2000 the difference had built up marginally to 7%. By 2010, state shares were 10.4% excluding China. When China is included it rises to 23.9% with China holding some 13.5%. As state ownership in China *per se* has not increased through additional nationalisations (to the contrary, there is a degree of *privatisation* taking place with Chinese mining companies), this demonstrates the increasing role that Chinese-owned mining is playing in global production.

Chinese mining accounts for the bulk of this increase in state control and the proportion of Chinese state-ownership of the global mined product is increasing. The most significant commodities are iron ore where in 1975, world state shares were 19.1% with China accounting for 2%. By 2010, the world share was 12.6% with China accounting for 7.5%.

There are strong indications of a growing government interest, mostly in emerging economies, in controlling domestic mine production to capture a larger share of the rents from mining, as opposed to the strategic imperative of China and many of the other demand-side growth economies. The countries that make up the proportions of metals produced under state control are a good indicator of the geopolitical implications of this level of control. These are shown in the next table.



Country profiles and rankings with respect to levels of state ownership 2009 vs 2008

Rank 2009	Total production 2009 (1)	State control 2009 (1)	State share 2009 (%)	State share 2008 (%)	Rank 2008
1. China	12,8	12,8	100	100	1
2. Chile	7,6	2,4	31,7	26	2
3. India	5,0	1,4	28,3	28	4
4. Iran	0,9	0,9	100	100	5
5. Poland	0,8	0,8	100	100	3
6. Uzbekistan	0,8	0,8	100	100	6
7. Indonesia	3,3	0,6	18,3	30	7
8. Sweden	0,6	0,3	57,1	78	9
9. Venezuela	0,5	0,3	69,9	87	8
10. Mauritania	0,3	0,2	66,7	75	10

Source: Raw Materials Group, Sweden

An important qualification of the data presented in the above table is that it does not include diamonds and industrial minerals. These sectors have significant levels of state ownership and control of production. Botswana and Namibia have 50 % equity stakes in the large-scale diamond mines (Debswana and Namdeb, respectively). Botswana has a 15 % direct interest in the holding company of the De Beers group, with board representation and a significant influence over group strategy.

In the industrial mineral sector, the state of Morocco controls the largest mining company in the country, Office Cherifien des Phosphates (OCP), which accounts for 15 % of global phosphate production. Other Arab states, such as Syria, Tunisia and Jordan, also produce phosphate rock and total aggregate state control of these countries accounts for 30 % of world production of phosphates.

State ownership in free market economies

While much of the research points to relative differences in management efficiency and profit incentive between state-owned companies and private companies, there is no indication that state-owned companies are in general not successful. The most successful state-owned mining companies are the Chilean copper producer Codelco, the Swedish iron ore miner LKAB, Botswana's diamond joint venture with De Beers, Debswana, and Indian iron ore mining company NMDC. These companies have been operating under state ownership for decades.

Both Codelco and LKAB have strategic intentions of extending their roles abroad to become more competitive. LKAB recently made an unsuccessful bid for the Brazilian iron ore producer Samitri. Codelco has an exploration subsidiary active in several Latin American countries including Brazil. Extending their interests beyond the relatively protective home countries and venturing into the highly competitive international exploration and mining arena raises the risk levels for these companies, which are by nature more risk-averse than the private sector. There are indications that LKAB may be privatised by the conservative alliance government, as the company has spoken openly about soliciting private sector shareholders and its tactics might well be pre-emptive. This sentiment has elicited strong negative public response and there is no strong political support for the proposal.

Finland has studied the possibility of establishing a state-controlled mining company to capitalise on the commodity super-cycle. Developments in Russia and East Europe are pertinent to this discussion insofar as the large-scale privatisation programme has served to reduce drastically the contribution of state-owned companies to global commodity production outside of China.

All indications are that the post-Soviet Union privatisations have to a large extent been concluded and only limited production capacity remains under state control. The process has not been an easy one for the people of the former Soviet-bloc countries. Because of the inefficiencies of the socialist production and employment model and the lack of competitiveness inherent under the demand economy regime, an inevitable consequence of these countries entering a free market economy was that employment would suffer. This has proved to be the case. In the Ukraine, for example, employment fell by 50 % between 1980 and 2000, with some 500 000 miners losing their jobs. Further, competitive restructuring has reduced the workforce to less than a third of its Soviet capacity.

In Russia and the former Council for Mutual Economic Assistance (CMEA) Eastern European countries, the impacts have been equally drastic. Virtually all metal mining in the Czech Republic and Slovakia has terminated and little remains of the once active base in the Romanian metal industry. Mining used to play an important economic role in the former Yugoslavia but currently makes very little contribution.

Part of the public issue is that, in the centrally planned economies, mining companies were often responsible for a large part of the social service delivery, irrespective of the economics of the operations themselves. The conversion of the mines to a competitive operating basis has resulted, not only in a necessary move to increased labour efficiencies, but also a curtailment of the mines responsibility for unaffordable social and service delivery, which is ultimately the preserve of the government. A similar situation occurred in Obuasi in Ghana when the Ghanaian government privatised the gold mines. The mines were effectively operating almost purely for the support of social programme delivery in the area.

Of the former heavy mining industry in the Soviet Union, outside Russia, only that in Poland and Bulgaria has survived. In Poland, the large copper mining company KGHM Polish Copper, which was established in the 1960s, was one of the few major industries set up by the Polish communist government. After the demise of the Soviet Union, the company was listed on the Warszawa stock exchange in the 1990s where, over a period of time, the government sold off a large stake but retained 31,8 %, as it wishes to maintain a measure of control over the company. Less strategic sectors such as zinc will be privatised. However, the Polish coal sector remains state controlled. Poland is a major coal producer in Europe and the energy sector is seen to be of major strategic importance to the Polish economy. It is significant that the coal sector is strongly unionised and is thus more politically sensitive than the other sectors.

The Bulgarian mining industry primarily comprises copper, lead and zinc and underwent a process of privatisation in the 1990s. In a free market situation, the lead and zinc operations are however not economically viable.

The Russian privatisation process was distorted and resulted in state-owned mining assets being acquired by the oligarchs on extremely favourable terms. Popular resistance to this unbridled transfer of public assets into wealthy private hands has been significant. Under President Putin there have been moves to increase state influence over the minerals sector, which has resulted in increased state control in the oil and gas sector. Norilsk Nickel remains under government control. While mining assets are generally under private sector management, security of tenure in Russia remains tenuous as was demonstrated in the



battle for control of the large diamond producer Alrosa, which ended in a compromise between federal government, regional government and private sector shareholders.

The Chinese factor

Given the increasing freedom of Chinese state-controlled mining companies, even when investing abroad, and the growing number of entirely privately-held mining companies and other companies investing in foreign mines, there are multiple players of Chinese origin both from government and industry. Their interests more often than not diverge. As their experience in and understanding of how the international mining industry and international mining investments function, the Chinese industry and government are also developing and changing.

When analysing these investments in more detail, a number of observations can be made.

- There appears to be a lack of a coherent strategy with regard to the earlier acquisitions. Often the rationale seems to have been the result of circumstance. The first major acquisition in Latin America was Shougang buying the Peruvian iron ore mine Marcona when it was privatised in 1992. There was no other major deal until a decade later. Likewise, the first deal in Africa concerned a chrome mine in South Africa bought in 1995 but it then took many years before further acquisitions in Africa were made.
- Although the number of deals and amount of money invested has risen in recent years, in particular as the Chinese companies have access to large amounts of capital from the Chinese currency reserves, the importance of Chinese-controlled overseas mine production has been and still is rather limited. There are some exceptions, such as copper production in Zambia and iron ore in Australia and Peru, but otherwise there is very little productive capacity in Africa or elsewhere in the world.
- Australia has been the most favoured target for investments. This is logical given the vast and often high quality resources of Australia and its relatively close location, compared to Africa and Latin America. Other countries bordering China, such as Afghanistan, Mongolia, DR Korea, Vietnam and Kazakhstan, have also recently been the subject of Chinese interest.
- Iron ore has been a main focus given the poor quality and mostly limited size of Chinese domestic resources. The second most important metal is copper, which China also lacks.

Chinese investors have various objectives. Chinese steel companies aim to secure a supply of iron ore without having to pay the high prices on the open market, caused by the acute crisis in iron ore supply and the control over the seaborne trade by the 'Big 3' (Vale, Rio Tinto and BHP Billiton). In addition, the steel companies are often larger than most mining companies and have some experience in international investment projects which most mining companies lack. The aluminium companies have also been active, as in Chinalco buying 9 % of Rio Tinto, although its second attempt to double that holding did not succeed. Construction companies such as China Railway Engineering Corp have also been active, partly to supply their skills in the construction of infrastructure such as railways and ports, which will be required to bring new iron ore deposits into production.

Most of the outbound investments go into minority stakes indicating that the Chinese are not yet ready to take undivided control of new ventures abroad. There is, however, no doubt that the Chinese mining investors will gain experience both from their foreign investments and the domestic mines, as they

introduce modern, large scale mining methods to modernise and expand their operations. When this occurs, they will also most probably be prepared to take full control over foreign operations.

In the Chinese quest for access to foreign mineral resources, the government and companies often have similar goals, but there are instances where their motives diverge. The commercial agenda of the companies is to have access to cost competitive resources and continue their commercial goals through investing abroad. In this way, companies can both grow and become truly internationally competitive, while management can expand their operational and their staff-skills.

For the government, the ownership of mineral deposits will improve the security of supply, which is in line with the policy that has been pursued on the energy side for a longer period of time. By securing a flow of iron ore, the Chinese steel industry will be in a position to supply the infrastructure necessary for a growing economy. The same reasoning can be applied to other metals to varying degrees.

As mentioned above, the structure of the Chinese mining sector is gradually changing and the industry is becoming more complex. The initiative to consider a new project is always proposed by the companies, as the central or regional governments have neither the knowledge nor the capacity to develop new foreign direct investment (FDI) ideas. Countries chosen are those with the best potential and are logistically most suitably located: Australia and West Africa for iron ore, for example. When the competition from the established mining multinationals in the target country is not strong due to political risk or lack of infrastructure, this can be an advantage to the Chinese investors, who generally have a longer time perspective than their competitors.

There are lists of favoured countries for outward investments issued by government and regularly updated and coordinated between the Ministry of Foreign Affairs and the Ministry of Commerce and other ministries. However, the coordination in the mining sector is not as tight as in the energy sector, as the coordinating agencies, such as the Secretariat of China-Africa Co-operation Forum, have limited influence. Given the decentralised manner in which the projects are assessed within each company, often the package of infrastructure development, general trade agreements and economic development support is prepared as a next step after the companies have already taken the first initiatives.

For any major investment, approval from the central government (National Development and Reform Commission (NDRC) and State Council) is required, in some cases also to obtain the necessary funding. The role of government is mostly reactive. It sees the need for new FDI in mining and has issued its general policy but reacts to the project proposals on a one-by-one basis. In spite of this lack of complete control, state control over foreign expansion of the Chinese mining industry is still considerable and no major project is undertaken without full government support.

It is estimated that over 800 Chinese state-owned companies are active in the metals and oil industry in Africa. The Chinese offer African countries soft loans and technical assistance to develop infrastructure of all types: railroads, ports, power lines and so forth. Iron ore junior, Bellzone Mining, has announced that the China International Fund (CIF) has agreed to fund the entire US\$2,7 billion infrastructure required for its Kalia project in Guinea, in return for the right to the mine's entire production. China Nonferrous Metal Mining (CNMC) planned to invest US\$600 million in Zambian copper in 2010 and 2011. In Guinea, Chinese investors have announced an investment of US\$7 billion to US\$9 billion over the next five years in mining infrastructure, housing, electricity, roads and water supply.



Although the focus has been on the Chinese presence in Africa, it is important to note that the share of African mine production that comes from Chinese controlled operations is still very limited. When looking at exploration expenditure (i.e. the long-term future of mining in Africa), the Chinese presence is almost zero. The main Chinese investment projects are focused on known deposits, mostly in iron ore, and all of them at an early stage. Iron ore is a special case as most iron ore deposits have been better defined than deposits of other metals. Most major iron ore deposits in the world were identified during the last iron ore boom in the 1960/70s when major efforts were made to explore for iron ore around the world. Therefore, to start an iron ore mine does not require sophisticated geological models and skilled geologists with high tech instruments. Rather the focus is on solving logistical and operational issues to supply a large mining operation with the necessary inputs. These include water and energy, as well as workers, qualified engineers, maintenance staff and, most importantly, transport to port and shipping of millions of tonnes of ore. In some cases, companies involved in the infrastructural support of mining have taken the lead in the Chinese projects in Africa.

As different companies behave differently in each African project, it is not yet possible to present generally applicable conclusions on how these projects will be executed or what the developmental effects will be. This is especially the case as the number of projects that have been completed is small, meaning there are only a limited number of projects that can provide insights for the future. (National Research Council of the National Academies, 2008)

THE POLITICAL ECONOMICS OF RESOURCE NATIONALISM

Changing ownership patterns carry significant transition costs (Mayer, C; Meadowcroft, SA, 1985). These include the costs associated with the transactions themselves, such as the compensation paid to private sector owners for the expropriation of their assets, as well as the economic implications of the legal and bureaucratic reorganisation that accompanies nationalisation events. Then there is the undermining of political and state legitimacy that follows and the cost of political violence that may ensue in the wake of these events. A further economic cost is that nationalisation increases the cost of the future privatisations that inevitably follow (Chua, 1995).

In examining the logic of the nationalisation and privatisation cycles, the degree to which there is a consensus among orthodox economists revolves around the costs of nationalisation.

Nationalisation is viewed among orthodox economists as unwise policy choice that brings with it negative economic consequences. This is based on the associated flight of capital, increasing productive inefficiencies in the sector, bureaucratisation of the sector, and corruption which are all routinely cited as consequences of nationalisation.

A critical factor in the efficiency and competitiveness of a national resources sector is that commodity markets are cyclical and state-owned companies operating in the resources sector are politically unable to shed labour and invest in hard times. This is principally because state-owned enterprises tend to be used by politicians to absorb unemployed labour during economic downturns. Governments may also be forced to borrow heavily to reduce public deficits, while state-owned enterprises languish during these recessionary phases. Privatisation in these circumstances is seen as a rational response to the negative consequences of previous waves of nationalisation.

The appropriate reach of private property has been contested across the 20th century and into the 21st. The Marxist tradition (and the wide range of intellectual approaches that have drawn on it) emphasises the

evils of exploitation and alienation in capitalist society. Leftist economists claim that rational planning could banish inequity and disorder from economic development. Pro-nationalisation ideologists invariably draw upon discontent with labour exploitation and unemployment. (Ideology does though work in both ways. In the aftermath of the Soviet empire's collapse, liberal ideologues rode a wave of sentiment in favour of market allocation and private property.)

Privatisation-nationalisation cycles do not map across countries (Chua, 1995), which suggests that global ideological shifts and geopolitical changes can explain only a part of these cycles. Institutional changes that occur at times of crisis and upheaval (Sturzenegger, Federico and Mariano Tommasi, 1998) often fail to endure. Duncan finds no link between expropriations in the resources sector and political or economic crises (except at independence) (Duncan, 2006).

Mayer hypothesises a “life cycle in ownership patterns” with “private ownership occurring in the early phases of technological innovation” and “public control being exercised thereafter as investment considerations diminish in significance in relation to demand responses” (Mayer, 1990).

Public ownership is prevalent in industries such as postal services and railways in which technical innovation is sluggish, investment expenditure is low and demand requirements are unpredictable. Private ownership, by contrast, tends to dominate where technological advances and the requirements of production bring about a need for major capital expenditures. This will be a key factor in the South African approach to the nationalisation of the deep level gold mines, which require significant investments in new technologies and sheer capital to take these mines beyond the current depths of 4 000 metres.

If technical innovation does, indeed, lead to private ownership (for example in telecommunications in recent decades), ownership patterns will not be stable. Instead there will be nationalisation life cycles as technical progress wanes (Mayer, 1990).

A SUMMARY OF THE ECONOMIC FACTORS TO BE CONSIDERED IN THE NATIONALISING OF MINES

The reality of state intervention in mining is that, irrespective of its perceived commercial benefit to the nation, it must be financed out of treasury and therefore always comes at a direct cost to the public. Whether or not the intervention is compensated for at fair market value or not, the state assumes the risk associated with that asset on acquiring the asset. The state is by nature less well equipped to manage many of the risks. These are:

- the considerable capital requirements of mines which will need to be funded by treasury and compete with social delivery programmes, such as housing, healthcare and education, and other key government spending priorities, such as defence
- the responsibility for environmental damage caused by mining and the rehabilitation
- the political fallout from having to retrench mineworkers when mines become marginal
- the need to support marginal and unprofitable mines during recessionary periods.

Unless the state-owned enterprise is run as a private enterprise with the freedom and flexibility of private enterprise, there will be political constraints on management action that will inevitably compromise competitiveness and therefore viability or profitability. The potentially compromised performance of state-owned companies could reduce a mineral sector's fiscal return to the state, exacerbating rather than improving the fiscal capacity of the state.



The fundamental requirement for economic growth in emerging economies is the need for long-term processes of economic and regulatory reform that ensure that inflation be brought under control, and foreign debt and budget deficits be reduced. State institutions and state-owned enterprises need to be well directed, particularly with respect to strengthening of regulatory and legal systems. For that matter, institutions in general invariably need to be strengthened. These are all litmus tests for whether resource nationalism will improve or degrade economic growth.

Chapter 3 The mechanisms of state intervention in mining

The various forms of resource nationalism include:

- nationalisation of mines
- state equity carry in mining projects
- state-owned mining companies
- developmental state models.

The distinction between nationalised mining companies and state-owned mining companies is as follows.

A state-owned mining company is a company that has been established and funded by the state to facilitate a strategic involvement in the mining sector, with the state having a controlling stake in the company. The company is managed by the state as a parastatal.

A nationalised mining company is one where the state has expropriated the company from the private sector, with or without compensation. Usually, some measure of compensation is given to the mining company furnishing the asset.

State equity in mining projects is where the state, through standing regulation, solicits a share of the company at the inception of the project for which it may or may not pay.

NATIONALISATION AND ECONOMIC DEVELOPMENT

Outright nationalism takes place when the state expropriates an entity or the entire sector by decree and may or may not elect to compensate the private owners of the expropriated assets. As discussed earlier, this type of nationalisation occurred widely in the wake of decolonisation, when governments nationalised industries that they perceived had been closely associated with the colonisation itself or the exploitation of the country's resources once colonisation had taken place.

As the motivation for each episode of nationalisation and privatisation is different for each country, they cannot be seen in isolation from the historical, economic and political circumstance prevailing at the time. There are therefore no rules that are generally applicable or typically underlie the actions taken by governments. This said, there have been geopolitical phases or 'fashions' that have encouraged the events. The current trend of rising resource nationalism stemming from perceived inequitable benefit from the mining industry certainly qualifies in this regard. An increase in state intervention is already been witnessed in both developed and emerging economies and can be expected to continue until a new equilibrium between mining interests and host governments has been achieved.

STATE-OWNED MINING COMPANIES: STATE PARTICIPATION OR STATE INTERVENTION IN THE MINING INDUSTRY

More often than not the distinguishing feature of a successful state-owned company as opposed to those that are less successful is the level of intervention by the state in running of the company, particularly the structuring of management incentives and the dividend policies that may impact negatively on re-investment and growth when government requires cash generation from the asset.



At an entrepreneurial level, incentives both drive and temper project risk. Mining is a high risk and difficult business, particularly during the exploration and development phases, and a high level of skilled risk assessment and management is required to realise high-risk projects. While there is justifiable concern about executive remuneration in private sector companies, the failure of executives to deliver is more brutal than in the public sector. This concern is compounded by the fact that incentives and bonuses tend to be at a much lower level in state-owned companies than in the private sector.

Shareholders in exploration and development companies usually understand the nature of exploration risk and approve incentive schemes related to success. The attitude to the remuneration of public officials is very different and untoward bonuses are seldom condoned. When this is added to the politics and bureaucracy that inevitably beset state-run organisations, there is little incentive to risk position and status on adventurous high-risk decisions (du Plessis, 2011).

There are other aspects to the risk profile of state-owned enterprises that differentiate them from successful private sector businesses. Under state management, there is seldom any threat of corporate take-over or bankruptcy to influence the behaviour of executives of state-owned enterprises as the state rarely allows its “strategic” enterprises to fail. This can compromise the economic efficiency of the state-owned enterprise and erode its productive capacity and competitiveness.

However, the employment of state-owned mining companies to protect strategic sources of supply for domestic purposes or to gain geopolitical leverage from commodities where their countries hold a dominant position is not necessarily a negative concept. Also, the above problems associated with state-owned companies do not necessarily mean that they are uncompetitive. In the discussion earlier, Mayer is quoted as observing that there is no empirical evidence that private sector companies are more efficient than public sector companies (Mayer, 1990). (In his paper on South African nationalisation, dealt with more fully later in this document, du Plessis provides a different perspective and maintains that across sectors, state-owned companies are less efficient than their private sector counterparts (du Plessis, 2011).

There are excellent examples of successful and well-run state-owned enterprises, such as Codelco in Chile, LKAB in Sweden, Petrobras in Brazil and SNIM (Société Nationale Industrielle et Minière) in Mauritania, as well as in China. LKAB has mined iron ore since its establishment in 1890. The firm has been 100 % state owned since 1950, after it virtually collapsed under the stress of low post-Second World War commodity prices. SNIM was established in 1952 as a private enterprise. It was nationalised in 1974 but partially privatised in 1978 to attract capital from the private sector. The government of Mauritania currently holds 78 % of the equity in SNIM.

In the context of the discussion on state intervention in mining, it is important to understand the success of these companies. While LKAB and SNIM are state-owned, their governments have over long periods of time understood and respected the imperatives of capital and labour as being different but essentially equally important. These may be clichéd cases of ‘all parties win’, but neither case proves a general rule that can be applied indiscriminately to nationalisation as a whole, in all countries, at all times. The more valuable lesson from both LKAB and SNIM is that, where executive government regards itself as accountable, and is seen to act accordingly, state-owned mining companies have a greater chance of long-term success.

There are inevitably historic reasons for nationalisation, as in the case of LKAB, but governments need to constantly re-examine whether there is an ongoing need to retain control of assets which may eventually be disadvantaged by public sector management in their ability to contribute to the country’s fiscal health.

The cause of retaining public equity in or government control over a mining company needs constant review and the re-privatisation of an asset or cluster of assets, does not mean a reversal of political ideology as much as it points to pragmatic and accountable governance on the part of government.



Chapter 4 The African experience of resource nationalism

The commodities super cycle and the resultant commodities boom has had a marked impact on the economy of Africa, which has, over the past decade, seen six of its countries fall within the world's 10 fastest-growing economies. These countries have outperformed, albeit from a low base, the economies of East Asia. Approximately 25 % of this growth was attributable to higher revenues from the extractives sector. The International Monetary Fund (IMF) expects Africa to grow by 6 % in 2012. Africa has a rapidly growing middle class and an estimated 60 million Africans currently have an income of US\$3 000 a year. This should rise to 100 million in 2015. The rate of foreign investment has increased tenfold in the past decade.

Resource nationalism is premised on the distribution of benefit of the commodities sector to host countries. However, while supplying a major component of the world's supply of mineral commodities, most Africans still live on less than two dollars a day. The continent's per capita food production has declined radically since the wave of independence starting in the 1960s. Corruption on the continent is endemic with kleptocracies existing in Angola, Equatorial Guinea, the DRC and Zimbabwe, and serious levels of corruption are evident in other countries. In South Africa, there has been a significant increase in reported levels of corruption over the past few years.

As the continent faces an era of rising resource nationalism, underpinned by post-colonial and Cold War Africanism, weak governments, weak institutions and corruption remain the greatest inhibitors to transformative growth. This section examines various manifestations of resource nationalism in a variety of African countries and discusses the successes and failures of these models as instructive examples for new manifestations of the sentiment.

THE NATIONALISATION AND REPRIVATISATION OF THE ASHANTI GOLDFIELDS IN GHANA

One of the earlier African nationalisation eras took place in Ghana. Parts of the country were colonised by the British in 1874 and called the Gold Coast Crown colony. Ghana's first commercial mining dates back to March 1890, when two merchants from the country's Cape Coast and their accountant Joseph Ellis, Chief Joseph Biney, Joseph Brown secured mining concessions of over 25 900 hectares in and around Obuasi. This became the Ashanti Goldfields Corporation Ltd (AGC), a colonial mining company listed for the first time in London in 1897.

Ashanti Goldfields during nationalisation

Shortly after Ghana achieved independence in 1957, mines were nationalised in 1958. The mining industry more or less remained under state-control from 1958 to 1986. The Ghanaian government set up two state-owned entities, the State Gold Mining Corporation (SGMC) and the Ghana National Manganese Marketing Corporation (GNMC). SGMC was established in 1961, and acquired five gold mines (Bibiani, Tarkwa, Prestea, Konongo and Dunkwa mines) from British colonial era companies. By 1966, all of Ghana's gold mines were nationalised with the exception of Ashanti's Obuasi mine.

In 1966 the first military government, the National Liberation Council, questioned the contribution AGC was making to the local economy and new investors were sought. Lonrho¹⁵ acquired AGC in 1968 offering the government a 20 % share in the company in exchange for a 50-year extension on its land leases. The

¹⁵ Originally the London Rhodesia Company and owned by Tiny Roland

government also had an option of another 20 % at the fixed price of £1 a share (AngloGold Ashanti).

However in 1972, all mines including Ashanti Goldfield (now renamed) were nationalised after a coup d'état led by Colonel Ignatius Acheampong toppled KA Busia's democratically elected regime. The new government seized a 55 % stake as part of a more comprehensive nationalisation programme. Apart from AGC, the government also took 55 % of Ghana Bauxite Company (BAC) and Ghana Consolidated Diamonds Company. GNMC took over manganese operations at Nsuta from the African Manganese Group (AMG), a British subsidiary of Union Carbide (Darimani, 2001).

For a period of nearly two years, foreign operations were required to reinvest up to 60 % of their after-tax profit in Ghana. As part of this dispensation, however, Lonrho retained an equity stake in Obuasi and remained, by and large, in control of day-to-day operations.

In terms of output capacity, the gold mining industry experienced an initial increase after nationalisation in 1958 then a continuing rapid decline. (Remember, AGC was not nationalised until 1972.) Gold production maintained its levels and increased initially from 747 493 ounces (1958) to 915 317 ounces (1960). After achieving an output of 912 592 ounces in 1964, it began steadily falling to 583 103 (1975) to 387 730 (1979), and to 276 659 ounces (1983). The announcement of the initial privatisation intention and the relaxing of regulations in 1983 had an immediate effect, with production rising to 287 124 ounces by the time the reforms were written into law in 1986 (Darimani, 2001). By 1991, output was up to 845 908 ounces, increasing exponentially to 2 481 635 in 1998. By this stage, AGC was producing half the output.

Re-privatisation

After the re-privatisation drive from 1983 to 1986 to stabilise and liberalise the economy, and attract foreign investment to grow the sector, the Ghanaian government sold 25 % of its interest in Ashanti Goldfields in 1994. The Government retained an equity position of 30 % and negotiated a 'golden vote' in the equity of the company. Ashanti Goldfields was then listed for the second time, again in London, during the same year. Each of the company's employees received five free shares (Wikipedia, 2011). The company later merged with AngloGold to form AngloGold Ashanti, in 2004, and has become one of the world's biggest gold miners.

Ashanti Goldfields survived nationalisation as a result of the continuing management contract of the private sector partner, Lonrho, despite the company not having a controlling stake. It did however come at a price. In 1972 before the government took the 55 % controlling interest, output was around 533 000 ounces. During the ensuing decade, production dropped to 232 000 ounces, as a result of a shortage of foreign exchange for mine maintenance, exploration and development investment, spiralling inflation, inadequate energy supply and deteriorating infrastructure. Other mines were not so fortunate. By 1986, before the Government fully embarked on the World Bank Economic Recovery Program (ERP), literally all the other state-controlled gold mines had been run into the ground being less able to resist government 'meddling'. An indicator is that by 1987, there were only four remaining gold mines in operation compared to 80 in 1938.

Another example of the rejuvenation of the mining sector after 1986 is Gold Fields acquiring a 71 % stake in Tarkwa in 1993. One of the world's largest gold miners, the company acquired the mine at the low cost of US\$10 million and rehabilitated the mine. Prior to this transaction, Tarkwa had been producing a few thousand ounces of gold a year. Gold Fields embarked on a major exploration and development programme and, after re-establishing a significant mineable resource, recommenced mining at a much



larger scale. Today, Tarkwa ranks as one of the world's biggest open cut gold ventures, producing a sustainable 750 000 ounces of gold a year.

A further significant expansion since liberalisation has been the Ahafo cluster which is being developed by Newmont, one of the world's biggest gold miners.

The impact of re-privatisation reforms on the Ghanaian mining sector

In 1983, Ghana adopted a World Bank Economic Recovery Programme (ERP) to achieve short-term economic stabilisation and long-term economic structural adjustment. A major goal was to rehabilitate the country's largest export earners, one being gold.

Between 1984 and 1995, there were significant institutional development and policy changes. These reflected the new paradigm of shifting the focus of government from the politically driven policies of state-controlled resources and employment growth at any cost. Government was required to focus on industry regulation, while allowing private companies to be the drivers in operating, managing and owning mineral companies. The key regulations were the establishment of the Minerals Commission in 1984, the promulgation of the Minerals and Mining Code in 1986, the promulgation of the Small-Scale Mining Law in 1989 and setting up the Environmental Protection Agency in 1994.

The new paradigm was in line with the thrust of the structural adjustment programs (SAP) prescribed by the World Bank. It was driven by the global paradigm which placed the focus on private sector-led development as the engine of economic recovery in developing countries. These programmes in the 1980s were not restricted to Ghana. They are seen in the Zambian, Tanzanian, and Guinea Conakry case studies, in this report, where the same pre-conditions were imposed.

The liberalisation measures introduced in 1986, which continue being amended to this day, included:

- tax rate reductions from 55 % to 45 %
- a variable royalty between 3 – 12 %
- a liberal foreign exchange regime
- removal of restrictions regarding transfer of dividends
- depreciation allowances of 75 % in the first year and 50 % thereafter on a declining balance basis
- capitalisation of all approved exploration expenditure; up to 5 % of total capital expenditure permitted
- loss carry-forwards not exceeding the total capital allowances for the fiscal year allowed
- registration and stamp duties deferred
- mineral exports exempted from export duty and imported plant, machinery, and equipment for start-up and crucial mining operations exempt from import duties.

The law also created greater accessibility for investors to acquire mineral concessions. For its part, government maintained an across-the-board 10 % equity carry in all new exploration projects, and had the option to acquire a further 20 % interest on terms agreed upon with the investors.

It is significant in considering the nationalisation regime that, between 1960 and 1980, the Ghanaian government did attempt to make amendments to its mining code to attract private sector investment into the industry, but this failed almost in its entirety. It was only when the government fully amended the codes to re-privatise state-owned industries that GDP began to be stimulated and Ghana was able to

achieve a growth averaging 5 % per annum throughout the 1980s and 4,2 % during the 1990s and 6,89 % during the 2000s.

Lessons from Ghana

Ghana behaved stereotypically by experiencing successive cycles of nationalisation and privatisation as described by commentators such as Chua. Notably, these cycles were also accompanied by a deterioration in the contribution of mining to the national economy during nationalisation, and then recovery after re-privatisation.

At a macro-economic level the impact of the nationalisation and privatisation cycles on the Ghanaian economy are clear. At the time of the initial nationalisation in 1958, mineral export earnings constituted approximately 24 % of Ghana's export earnings. However, this contribution decreased steadily to its lowest levels in the late 1970s at around 0,5 % and only recovered after the introduction of mining reforms in 1986. The sector's share of exports then increased from 15 % to more than 40 % of total export earnings. As a percentage of GDP in 1960, mineral export earnings constituted approximately 5 % of GDP. This share decreased steadily to 2,5 % in 1968 to a low of 0,3 % in 1982.

Ghana today

In the last decade, the mining sector contributed an average of 5,5 % GDP per year. Between 1990 and 2008, it also contributed an average of over 12 % of government revenue through corporate and personal income taxes, and royalties (of which it is the largest single contributor at 98 % of all royalties) (Mining Journal , 2010).

Ghana now ranks as the second largest African gold producer, after South Africa, and among the top 10 in the world. By 2010, output from gold had risen to 2 970 079 ounces. Gold generated revenue from sales was US\$3,62 billion and accounted for 48 % of the country's export revenue (Dzawu).

ZAMBIAN NATIONALISATION AND SUBSEQUENT PRIVATISATION OF ITS COPPER MINES: A STEREOTYPE OF NATIONALISATION FAILURE

Zambia gained independence from Britain in 1964 and a hostile relationship developed almost immediately between the mining sector and the government. In 1968, the then president, Kenneth Kaunda, expressed the opinion that from the outset of Zambia's independence the country's two principal copper miners, Roan Selection Trust Limited (RST) and Zambian Anglo American Corporation (Zam Anglo) had underinvested in the country's copper mines. RST was affiliated with the American Metal Climax Corporation (AMAX) of the United States of America, and Zam Anglo was part of Anglo American Corporation of South Africa. The companies, in turn, expressed the view that Zambia's royalty system of 13,5 % price of copper on the London Metal Exchange had reached the point where it dissuaded investment.

This dispute was never resolved and, in 1968, the ruling socialist United National Independence Party (UNIP) announced its intention to nationalise the copper mines. The thinking was that, by having control of the companies, they would be better able to carry out their developmental policies.



In 1970, the government established the Zambia Industrial and Mining Corporation (ZIMCO) to hold its interests in mining and industry. Kenneth Kaunda became Chairman of the Board. ZIMCO then bought 51 % shares in both Zam Anglo and RST, using dollar denominated bonds with maturity periods of eight to ten years. This limited state intervention until the bonds were repaid and, during this period, the mines remained under private sector management (Beckenstein, 2009).

The mines then began operating under two newly formed companies, Nchanga Consolidated Copper Mines Limited (NCCM) and Roan Consolidated Mines Limited (RCM), both of which were now majority owned by ZIMCO. The management contracts under which day-to-day operations of the mines had been carried out by Anglo American and RST were ended in 1973.

In 1979, the government increased ZIMCO's shares in NCCM to 60 % and RCM to 60,6 %. Finally, in 1982, NCCM and RCM were merged to form Zambia Consolidated Copper Mines (ZCCM) as a single state-owned mining company, with a State equity holding of 60,3 %. This made it one of the largest copper companies in the world. Zambia Copper Investments Ltd (ZCI), an associate company of Anglo American Plc, held 27,3 % of shares with the balance of 12,4 % of shares held by private investors.

A detailed analysis is covered by Libby and Woakes (Libby, Ronald T; Woakes, Michael E, 1980) (Libby, Ronald T; Woakes, Michael E, 1980). According to Libby and Woakes, the ruling socialist United National Independence party nationalised the industry for three key reasons.

- 1) Without state control of the country's major industries, Zambia's recently attained political independence was meaningless to most Zambians.
- 2) In the long term, the large private sector created under the colonial administration was not trusted to operate in conformity with UNIP's policy objectives.
- 3) The government mistrusted the private sector's interest in promoting the long-range economic interests of the country, unless UNIP had a controlling voice in industry.

An important qualification is that, unlike the DRC, the nationalisation of the mines was not one of overall ownership. Instead, the government took a 51 % controlling stake in all major copper mining corporations operating in Zambia. With nationalisation, all rights of ownership of minerals, including permission of access, exclusive prospecting and mining licenses, reverted to the state.

At this juncture, it is significant that Zambia was a prosperous country with one of the highest GDPs in Africa, three times that of Kenya, twice that of Egypt, and higher than the GDPs of Brazil, Malaysia, Turkey and South Korea. Zambia was largely debt free and self-financing through copper revenue and copper accounted for between 90 % and 95 % of all export earnings. It was initially able to invest in massive social programmes through surpluses from copper revenues.

Unfortunately for the Zambian government, shortly after the mines had been nationalised, oil prices rose significantly in 1973, followed by a collapse in commodity prices in 1975. By 1978, the copper price had fallen by 36 %. This triggered a general decline in global economic conditions, putting the Zambian economy and mines under sustained pressure. Export earnings declined drastically and a causal weakening of the Zambian kwacha (ZMK) led to escalating import costs of oil, machinery, equipment and spare parts, compounding the economic stress on the mines. In the 1980s, Zambia moved into a full recession with external debt rising to US\$3,4 billion or around 84 % of GDP (Ndulo & Mudenda).

While the antagonists of nationalisation frequently cite Zambia as the archetypal reason not to nationalise, the subsequent decline in the Zambian copper sector was not solely through government mismanagement. It has been stated a number of times in this document that a key disadvantage of a state-owned mine, as opposed to private sector companies, is that it cannot, for political reasons, react as flexibly to economic downturns by curtailing marginal operations and retrenching staff. For this reason, the industry was less resilient than it might have been. Zambian copper production declined consistently for the next three decades.

Macro-economic performance under nationalisation

The macro-economic impacts of the performance of the copper sector on the country are worth reviewing. Copper's contribution to the GDP was significant during the early years of nationalisation, averaging around 35 %. After the oil price increase in 1973, it reduced to 33 %. Following the collapse in copper prices in 1975, it shrank drastically to 13 %. By 1990, copper's contribution to Zambia's GDP was 9 %, levelling off at around 8 % between 1995 and 2002 (Mupimpila & van der Grijp).

Zambia's share of world copper output declined from 15 % in 1965 to less than 2 % in 2000. The actual copper mine production fell from a peak of 748 000 tonnes in 1969, to 677 000 tonnes (1975), to 649 000 tonnes (1979), after which no new mines were opened. By 1996, production has fallen to 350 000 tonnes and bottomed out at 249 000 tonnes in 2000.

During the period of nationalisation, employment rose initially from 52 090 employees in 1972 to a peak of 66 000 in 1976, as one of the principal objectives behind nationalisation was the promise of secure employment. The workforce then fell to 51 000 by 1986 and had dropped to 22 280 employees by the time the privatisation process was completed in 2000. It picked up after the privatisation was completed, and had flattened off at around 31 999 by 2006 (Simutanyi N, 2008).

Nationalisation saw the cost of production per tonne of copper increase from approximately ZMK500 in 1971 to almost ZMK1 000 in 1978. During this time, the revenue received per tonne barely increased. By the 1980s, substantial mining, smelting and refining capacity remained idle. Maintenance of equipment was poor, plant and facilities were falling into disrepair, and new investment was almost non-existent.

After copper prices crashed in 1975, coupled with the government's strategy of moving away from production for profit to production for decentralised mass employment and service delivery, re-investment into the mining sector put the government under severe pressure and escalating debt. Resulting from its drastic decline in copper exports, Zambia underwent a balance-of-payments crisis, looking to the World Bank and the International Monetary Fund (IMF) for assistance from the mid 1970s when the country was essentially bankrupt.

By the mid 1980s, Zambia was one of the most indebted nations in the world, relative to GDP. Various reforms, on IMF insistence, to stabilise the economy, restore its creditworthiness and reduce its dependence on copper were attempted. All collapsed when Kaunda's government backtracked or softened the policies when they became politically risky. In 1989, Kaunda did, however, enter into a new understanding with the IMF to attract capital investment.



Return to multi-party democracy and commitment to liberalisation of economy

At independence in 1964, Zambia was a multi-party state. This changed in December 1972 when the country was ruled, as a one-party state, by UNIP under Kenneth Kaunda until 1990.

In 1991, the end of the Cold War in 1991 forced Kaunda into a major policy about turn. To attract critical capital into the treasury, the government offered up to 40 % of its shares in all of its public entities except in its mining, industrial and commercial enterprises where it offered 49 %. In addition, understanding that Mikhail Gorbachev's announcement of a perestroika and glasnost had placed Zambia's socialist regime under further pressure and economic decline, he called for multi-party elections.

Kaunda lost the elections, and the Chiluba government (1991–2001) came to power on the ticket of extensive economic reform. The new government embarked on one of the most ambitious re-privatisation drives under pressure from the IMF and the World Bank over the level of its debt. This was a pre-condition for Zambia to qualify for debt relief through the highly indebted poor countries (HIPC) initiative and included Zambia agreeing to follow the structural adjustment program (SAP) being advocated by the World Bank at the time. By this time external debt had risen to US\$6 billion or 204 % of GDP.

ZCCM, Zambia's greatest challenge

The decision to re-privatise in the early 1990s was in line with most countries across Africa. Initially, however, the Chiluba government was reluctant to re-privatise the mines as ownership symbolised sovereignty. The re-privatisation drive began with smaller companies between 1992 and 1995, with many buyers being locals. By 1997 some 224 companies out of a total portfolio of 275 had been re-privatised.

Summary and lessons

Period nationalisation: 1968 – 2000.

End result: Severe recession with external debt burden being in the region of US\$7 billion by 2000. Mining industry collapsed with the copper output significantly reduced, unemployment rose and GDP per capita fell to one of the lowest in world from being one of the richest countries in sub-Saharan Africa in 1964. External debt was US\$6 billion or 204 % of GDP by 2000. The country was bankrupt.

Background

1. The decision to nationalise was made at a time when Zambia was relatively debt-free and self-financing through copper revenues.
2. Zambia's nationalism programme fell squarely into the key tenets of resource nationalism.

Lessons from key drivers for nationalisation

1. Example of successive cycles of nationalisation and privatisation (cyclicity) with rise of resource nationalism.
2. Failed to restructure the economy based on ideals of political doctrine (socialism) of state ownership:
 - nationalised during resource boom
 - political and social pressure on the government to deliver on social programmes not sustainable during economic downturns
 - creation of the state-owned monolithic ZCCM when Zambia was facing a crisis of escalating debt drained resources further.

The re-privatisation drive, regarded as one of the most ambitious in Africa, was largely successful until faced with the greatest challenge of the politically sensitive disinvestment in ZCCM. In 1996, the Government finally conceded to begin unbundling ZCCM operations as separate business packages. The Zambian government retained an equity position of 21 % in each entity through a special purpose vehicle, ZCCM Investment Holdings (ZCCM-IH).

The unbundling was a long, drawn out and complicated process. An arduous tender process followed with most parties failing to reach foreclosure. By 1998, the government was subsidising ZCCM at a rate of about US\$1 million per day, while the government itself was in significant financial crisis with its external debt burden being more than US\$7 billion. In the end, the government spent some ZMK2 trillion to support operations of ZCCM between 1991 and 2003 (Neo Simuntanyi, 2008).

The unbundling of ZCCM was fraught with accusations of lack of transparency, mismanagement, rent seeking and corruption.

First Quantum

In 1996, the first investors in the special business packages were London- and Toronto-listed First Quantum who acquired the Bwana Mkubwa mine in 1996. The mine had been operated intermittently since its discovery in 1902. The derelict state of the property and the questionable future of the mine, led to the government electing not to retain a share in the mine.

First Quantum then acquired the rights to Lonshi in 2000, just across the Zambian border in the DRC, to offset the depleting resources of Bwana Mkubwa. First discovered by Belgian geologists in the 1930s, the property had never been worked. Exploration commenced in November 2000, with the mine operational just eight months later at cost of US\$25 million. The concentrates from the mine were processed in

3. Misperception perception that the state can more effectively and efficiently unlock resources for a developmental growth path that is more inclusive and equitable:
 - could not weather wider global economic realities such as steep rises in the oil price in 1973 and then a collapse in the copper prices in 1975
 - 51 % shareholding in the copper mines gave the government a financial burden that it could not hope to cover in times of commodity collapse.
4. Inadequate grasp by the government as to the nature and extent of the long-term and international nature of mining:
 - not just a revenue generator but requires sustained reinvestment in exploration and current reserves for at least 5-10 years
 - equipment needs to be maintained.
5. Politics of employment creation and facilitating higher levels of labour absorption not achieved:
 - promise of secure employment not met
 - employment fell from 66 000 in 1976 to 22 280 in 2000.
6. Zambian state firms failed to perform for a variety of reasons including
 - inappropriate technology
 - inexperienced management
 - misappropriation of resources by officials appointed by government to run them
 - operation in a monopolistic environments with no competition
 - overstaffed
 - inefficient affecting financial viability, and turning to government to subsidise operations.
7. Lack of institutional capacity
 - did not retain key skilled staff from colonial operational
 - limited human resources for economic policy formulation and management
 - vested interests and cronyism.
8. No strong private sector to pick up the slack.



Zambia at the Bwana Mkubwa mine. Lonshi is significant in that it was the first new copper mine built on the Zambian-DRC copperbelt in 33 years. Nationalisation on both sides of the copperbelt, in Zambia and the DRC had rendered the industry moribund.

Other acquisitions through the unbundling of ZCCM were Kansanshi, and Nkana and Mufulira mines in a consortium with Glencore.

Binani Group

One of the first major packages to be sold off was the Luanshya Division consisting of the mine and a metallurgical complex, to the Binani Group of India. The controversial sale concluded on 15 October 1997, and the company began operating as the Roan Antelope Mining Company of Zambia Plc or RAMCZ. ZCCM retained a 15 % shareholding. This sale was to cost the Zambian Government dearly. Negotiations reportedly lacked transparency and the Binani Group did not have the necessary expertise to run a mine. The government eventually had to pay the workers themselves, repossess the mine, and resell it to new investors.

Anglo American Corporation

After protracted negotiations, Anglo American reinvested in Zambia through its investment vehicle Zambia Copper Investments (ZCI). The company purchased Konkola, Nchanga and Nampundwe mines as a single package for US\$90 million, in January 2000. ZCCM retained a 20 % interest in the newly named Konkola Copper Mines plc (KCM).

The original package had included Nkana Mine but was removed by Anglo American because of high cost and lack of investment over many years. They retained the right though to veto the sale if the purchaser was unable to guarantee investment and development of the ore body, as they needed to merge their product with that from Nkana to ensure an adequate smelting mix. The other agreement was that they would also keep control over the plant and refinery with a three-year option to buy (RAID).

First Quantum acquired Nkana and Mufulira mines after Anglo American signed the agreement for KCM.

However, after years of value erosion and a write-off of US\$353 million, low commodity prices finally led to Anglo American's second withdrawal from the country in 2002. Project cost projections had escalated more than 300 % of the original US\$300 million to just over US\$1 billion since 2000.

Anglovaal

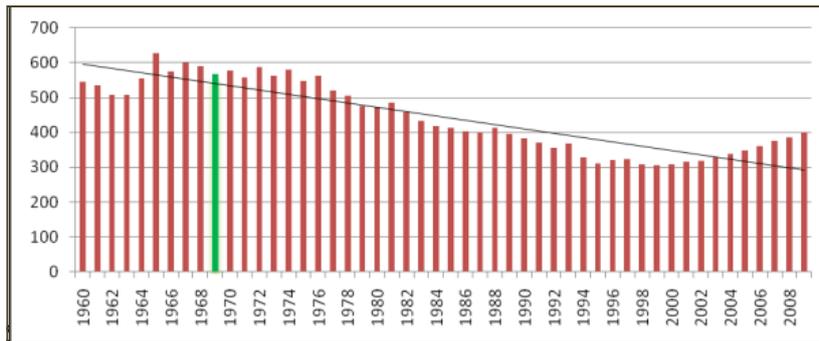
Anglovaal Mining (Avmin) acquired a 90 % holding in the Zambian cobalt plant, Chambisi Metals, together with the rights to the cobalt-rich Nkana slag dumps in 1998. The price was US\$50 million, a free carry interest for ZCCM of 10 %, and a commitment to capital expenditure of US\$140 million.

As with Anglo American in KCM, value erosion, low copper prices and escalating capital provisions forced Avmin to sell its Swiss-based J&W Holding AG and its subsidiary ENYA Holdings BV. The sale resulted in Avmin writing-off some US\$90 million to reduce risk exposure (Mining Weekly, 2003).

Conclusion

Zambia's copper industry was largely debt-free and self-financing until shortly after nationalisation. However, the country since accumulated staggering foreign debts, largely in support of the nationalised mining companies (World Bank, 1981). Throughout this period copper output was largely flat, suggesting that the variability in export value was almost entirely caused by copper prices and exchange rate movements.

Zambian GDP performance with nationalisation and reprivatisation



While the Zambian government's intention was clearly to use the nationalisation of the mines to increase the degree of benefit to its people, in fact exactly the opposite occurred. Over the Period 1976 to when the reprivatisation of the mines gained momentum in the early 2000's there was a net decline in GDP per capita as is seen from World Bank statistics. There is a direct correlation between the decline and recovery in copper production and the country's GDP per capita. There is also a direct correlation between the nationalisation and reprivatisation of Zambian copper production and its copper output. The inescapable conclusion is that nationalisation of the mines in Zambia exacerbated the economic circumstance of its people as a whole.

THE LIBERALISATION OF STATE CONTROL OVER MINES IN TANZANIA

Tanzania gained independence in 1961, with Julius Nyerere becoming the first president of the former Republic of Tanganyika in 1962. Tanzania was formed through a merger with Zanzibar to become the United Republic of Tanzania in 1964.

Nyerere introduced his own version of socialism called Ujamaa. His vision for nation building was implemented by the 1967 Arusha Declaration, which called for self-reliance through the creation of co-operative farm villages and the nationalisation of factories, plantations, banks and private companies.

This led to a complete stagnation of the mining sector. Commercial gold mining declined steadily from 3 tonnes per annum in the early 1960s to 10 kg per annum in the early 1970s, with production officially ceasing in 1972.

The socialist regime eased after Nyerere resigned in 1985 and President Ali Hassan Mwinyi came to power. The constitution was changed in 1992 to allow for a multi-party democracy and Benjamin William Mkapa was elected president in 1995.



As seen in Zambia and Ghana, escalating debt, high inflation, food shortages, non-delivery of basic services and a steady decline in agriculture all contributed to increased poverty and a worsening economic outlook. Again, as with other countries in similar economic positions in Africa, the government was forced to turn to the IMF and World Bank.

New legislation to liberalise the economy

In 1997 and 1998, the Tanzanian government eased investment and tax codes to attract international investment in the mineral sector. The 1997 Investment Act and the 1998 Mining Act were introduced as part of a five-year World Bank financed sectoral reform project. This followed the general trend in Africa, at the time, with new legislation being introduced as conditions for debt relief imposed by the World Bank and IMF. Tanzania joined the IMF and World Bank's SAPs.

This catalysed an increase in gold production that has resulted in Tanzania becoming Africa's third largest gold producer, behind only South Africa and Ghana. Among the reforms were measures that *inter alia* allowed companies to pay:

- corporate taxes of 30 %
- royalties of 3 % for gold, 5 % for diamond and 0 % for cut gemstone
- no import duties on capital goods for exploration and mine development
- VAT special relief.

Other benefits were:

- repatriating 100 % of their profits
- withholding taxes on dividends, paid out profits and technical services
- no ring fencing around the mining sector: losses in one mine could be offset against profits in another
- 100% depreciation with additional 15 % allowance
- unlimited loss carried forward (Hon. Dr. Ibrahim S. Msabaha (MP), 2006).

Unlike other companies in Tanzania, mining companies were exempt from paying capital gains taxes.

During the hiatus in the development of the formal sector of the mining industry in Tanzania, artisanal mining flourished in the gold and tanzanite fields. The ILO estimated in 1999 that there were between 450 000 and 600 000 artisanal miners employed in small-scale mining (International Labour Organization (ILO), 1999).

The growth of the formal sector, of necessity, required the allocation of certain mineral rights to large-scale mining operations. This led to significant conflict between artisanal miners and the mining companies. Tensions also developed between the mining companies and the government over the review of certain mining regulations that were originally intended to incentivise investment in the industry.

The new Tanzanian Mineral Policy is more balanced in its approach to precipitating broad-ranging benefit from the mining industry. Measures are directed at promoting economic integration between the mineral sector and other sectors of the economy. Other objectives include facilitating mining related value added activities to increase income and employment opportunities. Importantly, the policy considers the strategic participation by the government in viable mining projects.

In 2010, the Tanzanian Parliament passed the Mining Act of 2010 incorporating reformed tax codes and regulations. These were directed towards increasing state revenues from the industry and to accelerate the socio-economic development of local mine communities. The Act also actively promotes indigenisation of various aspects of the industry. Small-scale mining¹⁶ licences are reserved exclusively for Tanzanian citizens and companies under the exclusive control of Tanzanian citizens. Only Tanzanians qualify for licences to mine for gemstones, regardless of the size of the operation. Importantly, given the changes in policy and regulation, agreements with existing foreign controlled mining companies remain unchanged.

Growth since liberalising economy

Since the liberalisation of the Tanzanian mining sector, it has grown consistently. In 2009, gold exports earned Tanzania US\$1 076 billion compared to US\$40 million in 1999. Sectoral growth accelerated from approximately US\$74 million in 1999 to US\$711 million in 2005. FDI in the mining sector increased some 500 % over the decade to 2005. The mining sector's contribution to foreign earnings grew from an insignificant level in 1998 to around 42 % by 2005. The number of Tanzanians employed in the mining sector grew approximately 160 % in the decade to 2005. The contribution of the mining sector to Tanzanian GDP increased by 2,1 % in the 10 years from 1995-2005.

In summary, the nationalisation of Tanzanian mines led to the virtual stagnation of the industry and the subsequent liberalisation of the sector in 1998 finally broke that impasse. The growth in the industry since privatisation and liberalisation has been significant and clearly the policies have had their desired effect. However, as had happened in Obuasi in Ghana after privatisation, the change of control of the industry from government to private sector had political consequences, and there are high levels of conflict between artisanal miners, civil society and mining companies that are difficult to resolve.

Tanzania and resource nationalism

In the context of resource nationalism, the inclusion in the new mining legislation of indigenisation measures is encouraging but focuses too narrowly on the artisanal programme. This is at the expense of providing for greater levels of local benefit from the formal sector of the industry, as in South Africa for example.

Merameta

An interesting aspect of the Tanzanian government's focus on the artisanal programme was the pilot project run by the government in 2001 to assist artisanal miners by providing practical and financial support to artisanal groupings. The government established a company called Merameta, mandated to engage with artisanal miners and supply them with pumps, ball mills, compressors and technical assistance, in return for the right of the government to purchase the gold produced by the artisanal miners.

A second phase of the project was directed towards the formalisation of artisanal workings in an attempt to improve working conditions and safety, while increasing the efficiency of gold extraction. Meremeta was registered as a 50:50 joint venture project between the Tanzanian government and Triennex of South Africa.

¹⁶ Capital expenditure of less than US\$100 000.



The project failed for various reasons, one of which was that most of the funding of some US\$100 million failed to reach the project. It was notable that the project was managed under the auspices of the Tanzania People's Defence Forces (TPDF) and the company was a classified military project. It was intended that the profits from the project be used to supplement the military's budget (This Day, 2010).

The TPDF was omnipresent at the Buhemba open pit gold mine in Mara Region where gold mining operations commenced in February 2003. Tanzanian taxpayers through the Bank of Tanzania eventually heavily financed operations. Shortly thereafter, Merameta declared bankruptcy, formally dissolving in 2006.

Tanzanian government records show that, in winding up Merameta, the Bank of Botswana was committed to more than US\$118 million to Nedcor, a South African bank, after having guaranteed a loan to Meremeta. Following the liquidation of Meremeta Ltd, the Ministry of Energy and Minerals announced in parliament that a wholly-owned government company, Tangold Limited, had been formed and assumed all Meremeta company assets, including the Buhemba gold mine. However, Tangold was originally registered as an offshore company in Mauritius in April 2005 and only later registered in Tanzania.

Despite claims that the company was a wholly-owned government entity, local shareholders were listed as the late former Bank of Tanzania governor Daudi Ballali, the then Minister for Infrastructure Development, Andrew Chenge, and the permanent secretary in the Ministry of Finance, Gray Mgonja. Other shareholders were the Ministry of Water and Irrigation Permanent Secretary, Patrick Rutabanzibwa, and the then permanent secretary in the Ministry of Livestock Development, Vincent Mrisho.

Questions to the Tanzanian president as to how this state-owned mining company had ended up in the hands of senior politicians and government officials so shortly after significant state bank funding had been disbursed were rebuffed as a "military affair and therefore one of national security".

The Meremeta affair demonstrates the concern that nationalised state assets, paid for at taxpayers expense, can be subject to corruption and cronyism on re-privatisation of the asset where state governance is weak.

STATE PARTICIPATION IN THE MINING INDUSTRY ON GUINEA CONAKRY

A land of opportunity but with hard rules to play by, Guinea Conakry (Guinea) ranked 179 out of 183 in the World Bank Index on the ease of doing business in 2011. It remains one of the poorest countries in the world with a GDP of US\$400 per capita per annum.

Guinea has long been an important mining venue on the strength of its strategic reserves of bauxite. It has one of the world's largest bauxite resources with an estimated 24 % of global reserves. It is also one of the sector's largest producers after Australia. The country accounts for 94 % of Africa's bauxite production, and the commodity accounts for 20 % of Guinea's GDP and 90 % of its exports. Other commodities include iron ore, gold and diamonds.

On 2 October 1958, Guinea proclaimed itself a sovereign and independent republic. Ahmed Sékou Touré, who was declared president, pursued close ties with the Eastern Bloc, and instituted a dictatorship which included the broad implementation of one-party socialism. His rule was characterised by no tolerance for human rights, free expression or political opposition which was ruthlessly suppressed.

Guinea's political history since independence has been marked by political instability, military juntas, coup d'états, assassination attempts and violent strikes. The first democratic elections were held in 1993, although fraught with irregularities. In 2010, the first free and fair elections since independence were held. Although legislative elections were mandated to take place six months after the completion of presidential elections, as of November 2011 legislative elections had not yet been held.

In September 1996, the Guinean authorities joined the IMF and the World Bank SAPs to reform and restore economic and financial equilibrium. This followed years of declining mining and fiscal revenue, as well as poor management of public funds revenue. The overriding objective was to reduce levels of poverty, which were now over 40 % of the population, by attracting private investment, strengthening institutional capacity and promoting an ethic of responsibility in the public service. Continued political upheavals interrupted the process and, in 2002, the IMF suspended Guinea's Poverty Reduction and Growth Facility (PRGF) because the government failed to meet key performance criteria.

Although the mining sector accounts for more than 70 % of exports, agriculture is the main source of income for 80 % of the population. Corruption, a lack of infrastructure and skilled workers, and political instability are the main obstacles to Guinea's development.

In the wake of Guinea's first democratic elections, international interest in Guinea is on the rise. Following the release of Guinea's new mining code in September 2011, mining companies are beginning to restart their projects, and investors are arriving with interest in Guinea's overall economic potential and opportunities in the minerals sector.

In 2011, the Guinea parliament passed legislation granting the state a 35 % free carry in all new mining projects. This contrasts markedly with the previous mining code, promulgated in 1995, which granted the state a 15 % stake in some projects. The new code also increased customs duties to 8 % from 5,6 %, and states that Guinea should have an increased role in bauxite sales. Importantly, it also states that previous mining rights should not be challenged.

The World Bank and IMF restarted operations in Guinea in June 2011. The World Bank committed US\$140 million to development projects in 2011 and 2012, and the IMF initiated a Staff Managed Program designed as a bridge to the establishment of an Extended Credit Facility (ECF), a requirement for HIPC completion. As of October 2011, experts said Guinea might be able to begin the ECF by January 2012 and could qualify for debt relief under HIPC by July 2012. Although progress on economic reform and re-engaging with international partners has been slow, as of November 2011 President Conde seemed to be following through with his promise to make Guinea's economic development his top priority.

Interests in the mining sector

The policies of the new government at independence did not include full-scale nationalisation of mining companies. Guinea's dictator grasped the strategic importance of the country's geological assets and looked for foreign partners to develop them. Sekou Touré, a pragmatist, invited both Eastern and Western powers to capitalise on the mineral potential.



Bauxite

The Soviets were the first to enter Guinea in 1960. They established an aluminium refinery in Friguia (near the capital, Conakry) which was commissioned in 1973. In 1969, they also set-up a second facility, Office des Bauxites De Kindia (OBK), to supply the Nikoleav alumina refinery in Ukraine (Delasnerie & Diallo, 2004).

In 1964, the Compagnie des Bauxites de Guinea (CBG) was established as a principal player in the country's bauxite industry and has been a major producer of bauxite. The Guinea government originally held 49 % of CBG, with the balance being held HALCO, an international aluminium mining consortium. Today, the shareholding is HALCO (51 %) and Government of Guinea (49 %). Rio Tinto Alcan and Alcoa have held 45 % of HALCO since 2004 (Rio Tinto, 2010). In mid-1999, the government invited Alcoa to take over management of the project. CBG held mineral rights over some 10 000 km² until 2038. Currently, CBG exports about 14 million tonnes of high-grade bauxite every year.

With the fall of the Soviet Union, OBK and Friguia were unable to sustain operations through a lack of investment. This led, in 2000, to the assets being transferred to Russki Alumni (RUSAL), under the new name of Compagnie des Bauxites de Kindia (CBK). CBK produces some 3,1 million tonnes annually, nearly all of which is exported to Russia and Eastern Europe.

Dian Dian, a Guinean/Ukrainian joint bauxite venture, has a projected production rate of 1 million tonnes per year, but is not expected to begin operations for several years. The Alumina Compagnie de Guinee (ACG), a subsidiary of Rusal which took over the former Friguia Consortium, produced about 2 million tonnes of bauxite in 2010, which is used as raw material for its alumina refinery. The refinery supplies about 640 000 tonnes of alumina for export to world markets.

Both the Alcoa-Rio Tinto-Alcan consortium and the Guinea Alumina Corporation (GAC), whose stakeholders include BHP-Billiton, the Global Alumina Corporation, the Dubai Alumina Corporation and Abu Dhabi's Mubadala Development Company, have signed conventions with the government of Guinea to build large alumina refineries, with a combined capacity of about 4 million tonnes per year (U.S. State Department, 2011).

Gold, diamonds and iron ore

Diamonds and gold are mined, though Guinea's potential in these two industries has been historically underdeveloped. By far, most diamonds are mined artisanally. Because of the less strategic nature of these and other commodities mined in the country, the Guinea Conakry government in the past was less strident in insisting on such a role in other subsectors. The reason was again pragmatic as it was felt that investors would not tolerate these levels of interference. However, while bauxite has pre-occupied the attention of the Guinean government, with the commodities boom and the global demand for steel driven by Asian economic expansion, it is now redirecting its attention to other sectors of the industry, particularly the iron ore sector.

The largest gold mining operation in Guinea is a joint venture between the government and Ashanti Gold Fields of Ghana. Societe Miniere de Dinguiraye (SMD) also has a large gold mining facility in Lero near the Malian border, as does SEMAFO, a Canadian-based gold mining company.

The Guinean joint venture approach to mining of the country's bauxite has persisted successfully for decades under extremely difficult political conditions. Tensions between the Government and private

companies have always existed, particularly in the light of changing governments and regulatory environment, and continued threats to cancel mining licences.

An example is Rio Tinto signing an agreement with the government of Guinea in 2003 to develop a 110 km² iron mine in Simandou. In December 2008, the government announced that it would be revoking part of Rio Tinto's Simandou contract. The site remained in dispute until April 2011, when Rio Tinto signed an agreement with the government to develop its two remaining blocks of Simandou in exchange for a US\$700 million payment to the government. As of October 2011, the company had invested nearly US\$3 billion in feasibility studies and early development of the mining site and associated infrastructure. Brazil's Vale also has blocks in Simandou. (U.S. State Department, 2011)

MISMANAGEMENT OF STATE-OWNED MINES, ABUSE OF RESOURCE RENTS AND ENDEMIC CORRUPTION: GÉCAMINES AND THE DRC RESOURCE CURSE

The Democratic Republic of Congo (DRC), formerly, in chronological order, the Congo Free State, Belgian Congo, Congo-Léopoldville, Congo-Kinshasa and Zaire, provides one of the most extreme examples of (failed) nationalisation. Rich in resources with one of the most attractive suites of minerals in Africa, the DRC has abundant copper and cobalt, as well as gold, diamonds, zinc, tin and manganese.

In 1960 at independence, there was a mass exodus of Belgian nationals from what had been the Belgian Congo after a brutal period of colonisation, and a consequent liberation struggle and civil war.

Mobutu era and Gécamines

In 1965, Joseph-Désiré Mobutu, more commonly known as Mobutu Seso Seko, became the first President of the newly independent Zaire. In 1966, Union Minière du Haut Katanga (Union Minière) was nationalised, and renamed Gécamines, as part of a widespread programme of nationalisation without compensation. Union Minière had been a Belgian-headquartered, private colonial mining company that had operated in the DRC's Katanga Province from 1906. As a highly profitable operation, it made a net profit of £32 million in 1959, and, in 1960, amid conflict and secession, the company maintained copper production at 301 000 tonnes per annum.

In the years immediately following nationalisation, Gécamines continued to be productive (Andrews, 2008). Between 1975 and 1990, copper production in the DRC ranged between 355 000 and 480 000 tonnes a year. Throughout much of this period, the managerial hierarchy within Gécamines was still Belgians. (Mobutu allowed this arrangement because sustained production provided him with high rents that he appropriated for himself and his 'clique'.) Even after the last Belgian head of Gécamines was replaced in the early 1980s, operations remained regarded as revenue generating. Belgians remained in technical positions in the company, and subcontracting agreements with private firms delegated technical aspects of production to outsiders with expertise (Andrews, C; Boubacar, B; Delphin, T, 2008)

However, a collapse in commodity prices in the early 1980s threatened the viability of Gécamines and the industry as a whole (Council of NGOs of Katanga (CRONGD), 2006). To maintain the primary source of rents on which the Mobutu regime depended, a new Mining Act was promulgated in 1981, whereby private investment in the mining sector was permitted, with the proviso that mineral rights could only be obtained by private parties if they partnered with a state-owned enterprise. Alternatively, they could negotiate a special agreement with the government (Andrews, C; Boubacar, B; Delphin, T, 2008), but these



agreements provided an easy channel for widespread corruption that accompanied the granting of mineral rights.

Other factors also materially damaged the viability of the industry in the 1980s and 1990s. These included mismanagement of state-owned mining companies by the Mobutu government and lack of capital investment in the mines. Political ‘cronyism’ in the selection of directors and senior managers as opposed to merit-based hiring was rife as was the endemic embezzlement of money and product from the mines, which eventually crippled their operations. Exacerbating this situation was that levels of employment compared to production levels were disproportionately high because of political patrimony, which further jeopardised the viability of the few surviving operations (Andrews, C; Boubacar, B; Delphin, T, 2008).

As a result by 1994, copper output from its mines only reached 33 725 tonnes compared to 500 000 tons in the late 1980s. Cobalt production dropped by 1994 down to 3 681 tons against 9 981 tons in 1990. Zinc output fell from 38 204 tons in 1990 to 2 515 tons in 1994. In addition, artisanal mining rose dramatically during this period.

The deterioration of the industry was accelerated by the physical collapse of Kamoto mine in 1990 (part of the Gécamines stable)¹⁷. As a poorly managed state-owned entity, Gécamines had suffered an exit of skilled mining professionals for decades. Employees who had been retained were steadily replaced by political cronies. Gécamines was persistently raided by Mobutu to the point where capital expenditure for the mine’s stay-in-business ore reserve development, equipment maintenance and replacement programmes was no longer available from provisions for retained earnings, as would be the case in a private sector operation. Instead of having accumulated cash reserves to maintain and develop the business, by the early 1990s, Gécamines had debt running into billions of dollars. Despite a number of failed attempts to privatise the company under Laurent-Désiré Kabila (who succeeded Mobutu as president in 1997), Gécamines retained its massive burden of debt, which has hamstrung the company’s ability to expand and take advantage of the commodities boom.

Civil war

The outbreak of civil war in 1996 delayed any efforts to reinvigorate the mining sector. In May 1997, Mabuto fled the country to be replaced by Laurent-Désiré Kabila and, following Mobutu’s fall, international financial institutions such as the World Bank undertook to support the country subject to a new mining policy (Council of NGOs of Katanga (CRONGD), 2006). This was in line with the World Bank’s SAPs applied in failing African states at the time such as those in Zambia, Ghana, Tanzania and Guinea, and already covered in this chapter.

When Kabila was assassinated by one of his bodyguards in 2001, the country was once again engulfed in a regional civil war that claimed the lives of millions of DRC citizens. Kabila was replaced by his son, Joseph, who has remained in power and has recently been returned in a general election with a highly disputed result

New Mining Code, 2002

To jumpstart the mining sector, the 2002 Mining Code was passed to replace the 1981 code. It provided a more investor-friendly regulatory framework by permitting private sector access to mineral rights without

¹⁷ Now owned Toronto and London listed Katanga Mining

the prerequisite of a partnership with the state. As a result, the state's role was confined to promoting and regulating the mining sector.

When assessing this decades-long experience with nationalisation, the results are discouraging. They are also ambiguous and, were in fact, exacerbated by the socio-political context in the DRC. In the 1980s, the extractive sector accounted for 25 % of the DRC's GDP, 25 % of its fiscal revenues, and 75 % of export earnings (André-Dumont, 2011). Civil war, conflict and political instability hindered resource development in the 1990s as opposed to nationalisation alone. By 2000, mining's share of GDP fell to 6 % (Coakley, 2003), although it still accounted for 70 % of the value of exports (Mabolia, 2000) By 2005, the mining sector's share of GDP had fallen further to 0,24 % and it generated only 2,4 % of fiscal revenue (André-Dumont, 2011).

By the late 2000s, the sector had partially recovered and in 2006 accounted for 8,2 % of GDP, rising to 21,6 % in 2008, and declining again to 8,9 % in 2009 (Garrett & Lintzer, 2010). This recovery was influenced by the liberalisation of the mining sector, but it also accompanied a decrease in conflict within the country. The post-2008 decline on the other hand was due in large part to the global financial crisis and the recessionary phase that followed.

A major problem from the collapse of the economy and the formal mining sector in the 1980s was the rise of artisanal mining. By 2008, it was the largest segment in the DRC mining sector producing around 90 % of minerals production in DRC. The estimates on the number of artisanal miners vary up to 2 million diggers (called *creuseurs*), on whom four or five people are directly dependent. So the total number of people whose livelihood depends on artisanal mining could be as many as 8 to 10 million or 14-16 % of the population¹⁸.

While the 2002 code drew a significant amount of investment into DRC's mining sector, the state's lack of institutional capacity continued to weaken the implementation of the regulatory framework set out by the 2002 legislation. For example, several companies arrived in the DRC to negotiate contracts with the government, following the civil war in 1996, in an environment without a clear legal framework. As a result, these companies gained favourable terms for their mining activities, which the government has failed to revisit and revise through the 2002 Mining Act.

Along the same lines, bureaucratic procedures to transparently monitor and manage the sector are not in place, nor do the responsible state agencies have the technical expertise to fulfil them effectively. Ministries have high turnover rates, and few officials are familiar with the procedures prescribed by the 2002 code. This makes the efficient acquisition of new mineral rights difficult and frustrating, deterring investment in the sector.

The DRC's deterioration from being a resource rich country, with the potential to deliver benefits to the poor through the collection and effective redistribution of mining revenues, to a failed state at the hands of successive governments is a classic example of the gross mismanagement of resource rents. Unlike Chile and Brazil, the DRC government has, over an extended period of time, demonstrated little respect for capital and labour. This neglect not only resulted in the failure of Gécamines, despite the solid foundation that had been laid by Union Minière, but also hindered high quality private investment in the country.

¹⁸ The World Bank describes the sector as being 'dominated by a number of problem areas, including relations between artisans and large-scale mines; exploitation of vulnerable populations; extortion by government officials and criminal elements; lack of health, safety, and environment protection; and inadequate legal protection and government assistance for the miners' (The World Bank, 2008).



An additional factor in the economic failure was that Union Minière had been responsible for the development of an extensive rail network with its hub at the Katanga junction. The railway lines ran to the west coast of Africa, to two ports on the east coast, and to South Africa. A line was also built to the north of the DRC. With the demise of Union Minière, the rail network fell into disrepair and collapsed, although sections have been refurbished recently. This infrastructure collapse had a devastating impact on the region's economy.

The result as we know it by early 2012

The key issue in the DRC is that it is arguably the worst and most stereotypical case of the resource curse in the world. The disparity between the country's mineral economic wealth and its people's prosperity is difficult to conceive. As one of the world's most fragile states, political conflict has led to thousands of deaths a year, with a concomitant impact on disease and poverty that has resulted in further devastation.

Kabila has committed to developing the country's extractive sectors to improve the position of his people, but the track record of his government since the death of his father in 2001 and his ascendancy to the presidency is not encouraging. The government is almost devoid of institutional capacity, skills and capital, and the endemic corruption in the DRC jeopardises the possibility of reform. Kabila's ability to develop the country's economy on the back of its mining industry over the next five years is, consequently, extremely limited. Any progress would be premised on foreign direct investment, foreign skills and focused donor aid.

There is also a wide disparity in development across the DRC. Despite considerable investment in the mineral-rich Katanga province, the country has seen little formal sector activity in the provinces of North and South Kivu, which have historically been conflict ridden. Minerals, from informal mining in these areas, have been used to fund the civil war in the country that has raged for decades. Goma, traditionally dependent on mining taxes as North Kivu's centre of government and mining centre is insolvent, with salaries not been paid in full for months.

In summary, the resource curse afflicting the DRC stems directly from an extended and gross mismanagement of the mining sector on the part of the state over a long period of time; endemic corruption at every level of Congolese bureaucracy and government; and the systematic abuse, theft and mismanagement of resource rents. The re-election of the Kabila government in late 2011 is unlikely to change this pattern in the near future.

INDIGENISATION - ZIMBABWE'S CLAIM TO MAJORITY OWNERSHIP

Zimbabwe ranks 134 out of 178 on Transparency International's Corruption Perceptions Index for 2010 (Corruption Perceptions Index, 2010). The country falls into the 'Highly Corrupt' category which also includes countries covered in this report, such as Guinea, Mauritania and the DRC. The World Bank Group ranks Zimbabwe 172 out of 183 countries on its 2012 Doing Business Index (World Bank Group, 2012). Zimbabwe has the lowest ranking in sub-Saharan Africa on the ease of accessing electricity supply vital for operations (167 out of 183).

Following independence in 1980 after a protracted liberation struggle, ZANU-PF came to power led by Robert Mugabe. The pattern was similar to Ghana, Zambia, Tanzania and other countries some 10 to 20 years earlier in terms of aiming to implement policies aligned to socialism. The government took control of the mining industry and nationalised selected assets. State mining companies include the Minerals Marketing Corporation of Zimbabwe (MMCZ), the Zimbabwe Mining Development Corporation (ZMDC) and Zimbabwe Iron and Steel Company (ZISCO).

The power-sharing government of national unity (GNU), formed in February 2009, has led to some economic improvements, including the cessation of hyperinflation by eliminating the use of the Zimbabwe dollar and removing price controls. (CIA World Factbook, 2011).

After the GNU was formed, Zimbabwe's economy revived despite continuing political uncertainty. Following a decade of contraction, Zimbabwe's economy recorded real growth of 5,9 % in 2010. However, the government of Zimbabwe still faces a number of difficult economic problems, including a large external debt burden and insufficient formal employment. The government's land reform programme, characterised by violence, badly damaged the commercial farming sector, which was the traditional source of exports and foreign exchange and an employer of 400 000 people. The programme turned Zimbabwe into a net importer of food products.

Real GDP growth reflects the political economy of Zimbabwe since independence. The period 1981-1990 shows a growth of 4,3 %, followed by a 0,9 % growth (1991-2000), decreasing to -5,00 % growth (2001-2007). In 2007, it was down to -14,1 %, improving to -1,3 % (2009) after forming of the coalition government, and recovering to 9 % in 2010 (Index Mundi, 2011).

Rich in resources but beset by political instability and high risk ratings, Zimbabwe is presently embroiled with mining companies over its insistence on enforcing the controversial new indigenisation law, which will force foreign companies to 'dispose' of 51 % of shares to black Zimbabweans.

Ministry and state-owned mining companies

The Ministry of Mines and Mining Development (MMMD) is Zimbabwe's regulatory department responsible for controlling the industry from exploration and mining to beneficiation and marketing by implementing mining laws, regulations and programmes. It works together with the MMCZ and the ZMDC.

In terms of the GNU, ZANU-PF controls the minerals resources sector, while the MDC controls the treasury. In 2008, just before the GNU was formed, the Zimbabwean Ministry of Defence became involved in diamonds. Zimbabwean state interests in mining are diverse but have not been developed following a formulated strategy. They are rather reactive to prevailing conditions and circumstances, including the political economy of the country.

Zimbabwe Mining Development Corporation (ZMDC)

The ZMDC is a parastatal under the MMMD. It was formed in 1982, just after independence, as the holding company of the mining assets the government nationalised at the time. Over the years, the ZMDC has grown into a diverse group also taking over marginal operations and, at present, the company has interests in diamonds, platinum, chromite, gold and copper. It pursues mining investments of behalf of the government.

ZMDC has been the subject of news reports since its involvement in the Marange diamond fields. The US Treasury's Office of Foreign Assets Control (OFAC) currently blacklists sales from the ZMDC.

Minerals Marketing Corporation of Zimbabwe (MMCZ)

The MMCZ is also a parastatal under the MMMD. It acts as the sole marketing and selling agent for all minerals except gold and silver. Also, it investigates market conditions, encourages local beneficiation from



the production of minerals and advises the minister on all matters connected with the marketing of minerals.

The role of the MMCZ changed after mineral exports were liberalised in 2009 and companies could now export their products directly. It now monitors production and exports to avoid transfer pricing and other abuses. It is often regarded as a cost on the industry at a 0,875 % tax/royalty rate, because in practice the MMCZ does not add any value to the selling process. The MMCZ controls all Zimbabwean Kimberley Process certification (Ericsson & Löf, 2010).

Zimbabwe Iron and Steel Company (ZISCO)

ZISCO is the largest steel works in Zimbabwe. Over the years, the company has faced many operational problems and been dogged by corruption scandals. As of early 2008, the company was producing well below the break-even capacity. It was wholly-owned by the government up until it invited bidders for a 64 % stake of the ZISCO group of companies. Fifty four percent of the company is now in the hands of Essar Africa Holdings Ltd. The government of Zimbabwe holds 36 % and a consortium of private investors holds 10 %. The ZISCO group of companies include BIMCO, Lancashire Steel, Frontier Steel, and ZISCO Distribution Centre. All these companies are 100 % owned by ZISCO (Wikipedia, 2008).

Indigenisation

The Indigenisation and Economic Empowerment Regulations were introduced in 2010. The intention was for 'non-indigenous' mining companies to 'cede' 51 % of their assets or shareholding to 'indigenous' persons within five years (2015) or on date of commencing operations. Objection from the Movement for Democratic Change (MDC), which forms the coalition government with ZANU-PF at this stage, together with an outcry from the investment community and mining companies, led to the controversial legislation being sent back for re-consideration.

The latest regulations, gazetted in March 2011, had a deadline of 25 September 2011. All foreign-owned ('non-indigenous') companies with a net asset value of US\$1 had to 'dispose' of controlling stakes to indigenous Zimbabwean entities within six months. This was a change from a net asset value of US\$500 000 as promulgated in 2010. The value also changed to include undeveloped concessions.

This meant that majority shareholdings in any foreign-owned mining firm worth more than US\$1 were to be disposed of to designated entities, as referred to in the new law, as opposed to individuals in the 2010 legislation. There are fears that 'designated' means ZANU-PF officials or supporters. The government, on the other hand, says the entities are:

- National Indigenisation and Economic Empowerment Fund
- ZMDC
- any company formed by the ZMDC
- a statutory sovereign wealth fund
- an employee or community share ownership scheme or trust.

The catch according to the legal profession, however, is that the selling price is not defined by market value but rather should take into account "the State's sovereign ownership of the minerals" (Zimbabwe Government Gazette Extraordinary, 2011).

By October 2011, only Rio Tinto's Zimbabwean subsidiary, Murowa Diamonds, had agreed to voluntarily surrender 51 % of its shareholding. Over 700 companies resisted, missed the deadline, and were threatened with having their mining licences revoked and deregistration. Most companies entered into negotiations with the government which, according to the government, were all rejected. Given until November 2011 to comply, there is no action yet against any mining company (by the time of writing, January 2012).

Zimplats

A much publicised case has been that of Zimplats, part of the Impala Group of Companies. Impala Platinum produces about 25 % of the world's platinum. Zimplats was named, and threatened, by the government that it would have its licence taken away in September 2011 if it did not comply. In November 2011, Zimplats submitted a revised plan to give-up a 10 % shareholding to locals, which would be boosted by US\$10 million to set up a trust to administer the shares awarded to the community.

The outcome was rejection by the Zimbabwean government, and Zimplats was given two weeks to transfer 29, 5 % of its shares to a state-run fund at the end of February 2012. By 14 March 2012, a SENS announcement was issued by Impala Platinum. "The Government has agreed in principle that the new plan presented is compliant with the law and is acceptable. No agreement has been reached on timing or valuation other than that the transactions would be at appropriate value. The proposals made by Implats to the Government in this regard are:

- shares in Zimplats representing 10% of the enlarged issued share capital of Zimplats will be issued to the Community Trust at the independent valuation previously submitted to the Government. Zimplats will provide an interest free loan to the Community Trust to fund the shares and the loan will be repaid from dividends. This stake would be non-contributory.
- shares in Zimplats representing a further 10% of the enlarged issued share capital of Zimplats will be sold to an employee share ownership trust for the benefit of all full time employees of Zimplats. The shares will be sold at the same independent valuation and Zimplats will provide an interest-bearing loan to the Employee Trust to fund the purchase of the shares. The loan will be repaid from dividends and will be contributory or dilutive.

It has also been agreed that Zimplats and the Government will explore fair value compensation in lieu of empowerment credits for the ground released under the agreement of 24 May 2006. It was proposed to Government that on receipt of this compensation, Zimplats will make available for sale to the National Indigenisation and Economic Empowerment Fund ("NIEEF") a 31% fully contributory stake in Zimplats for cash at an independently determined fair value at the time. Future expansion opportunities will therefore not be impacted.

Upon the execution of these initiatives, Zimplats will have met all of the Government's indigenisation and empowerment objectives and requirements." (Impala Platinum, 2012)

Zimplats was also embroiled with the Zimbabwe government in February 2012. This time it was over royalty payments where the government issued a garnishee order to the company's bankers for US\$28, 3 million in November 2011. The government asserts that Zimplats has continued to pay royalties at 2010 rates after they had been increased from 2, 5 % to 5 %. Zimplats has argued it is exempt. In the 2012 budget, the Finance Minister again increased platinum royalties from 5 % to 10 % and gold royalties from 4,5 % to 7 % (Reuters, 2012).



Amplats, Aquarius and other companies

Amplats followed suit by giving up 10 % of the Unki platinum project later in November 2011, and establishing a US\$10 million fund to help finance the operations of a local community share ownership trust.

More companies are expected to follow but there is concern that the motivation for the regulations is to strengthen President Robert Mugabe's reserves and consequent hold on the country ahead of possible elections in 2012.

Marange diamond fields

The Marange diamond fields have a controversial history mired in allegations of blood diamonds, human rights abuses, corruption, extortion, smuggling, environmental degradation and vested interests to amass wealth to extend Mugabe's 31 year reign, according to monitoring groups, diplomats, lawmakers and analysts (Eligon, 2011).

Initially, De Beers held the exploration rights but did not renew the permit in March 2006. The claim was then registered by a UK company, African Consolidated Resources (ACR), and diamonds were discovered three months later. On declaring the find, the government evicted ACR and confiscated the 129 400 carats extracted. An international court case remains ongoing. The government then opened up the fields to everyone, and a contemporary 'Wild West' scenario almost exploded overnight. When the government failed to purchase the diamonds because of cash constraints, a thriving black market developed, accompanied by unrestrained smuggling. Estimates are that the fields attracted between 15 000 and 35 000 artisanal miners who then illegally sold the diamonds to dealers outside the country (allAfrica.com, 2011).

“Over the following two years, the government launched two operations to crackdown on ‘illegal’ mining. The first, Chikorokoza Chapera (End to Illegal Panning), was conducted by the police and, the second, in 2008, Operation Hakudzokwi (No Return), involved the Zimbabwe National Army, Air Force and Central Intelligence Agency. Violence peaked. According to Human Rights Watch, Operation Hakudzokwi appeared to have two goals. The first was to ensure control of the diamond deposits for the Zanu PF elite and, second, to reward the army for its loyalty to this clique. More than 800 soldiers were deployed alongside helicopter gunships, killing over 200 people. Following this operation, soldiers took over mining syndicates previously run by the police, and forced local people, including children, to mine for them. The military was also central in facilitating the smuggling of these diamonds out of Zimbabwe to neighbouring countries including Mozambique and South Africa.” (Global Witness, 2010)

By November, 2008, two months before the GNU was formed, the army was firmly in control. The allegations are denied by Harare.

Kimberley Process

The Kimberley Process, set-up in 2003 to monitor the sale of blood diamonds internationally, imposed a ban on the sale of Marange diamonds in 2009 over human right abuses and allegations that Zimbabwean military officers had significant interests in the industry. It caused an outcry among the African diamond producers, and two firms continued to mine and stockpile diamonds reportedly worth US\$5 billion.

In 2010, under pressure from African diamond producers, the Kimberley Process authorised two strictly supervised auctions to take place, over objections from Western countries such as the USA. At the first

auction in Russia, boycotted by the USA, some 900 000 carats of Marange diamonds were sold, worth US\$46 million (Sokwanele , 2011).

Deadlocked for two years, the Kimberley Process lifted the ban on the sale of Marange diamonds in December 2011. The USA did not agree, and the treasury's Office of Foreign Assets Control (OFAC) updated its sanctions list to include Mbada Diamonds and Marange Resources, both joint venture groups with the state-owned ZMDC. The ZMDC was already on the sanctions list, meaning that legally all transactions were blocked. The Rapaport Group of diamond traders, which has 6 750 trading members in 78 countries, followed suit blocking sales from Marange, on the basis of human rights abuse and the wider role of blood diamonds in conflict or war zones (Sapa-AFP , 2011).

Joint ventures through the ZMDC

In July 2009, the Ministry of Mines accepted expressions of interest from companies willing to enter into joint venture agreements to mine in Marange under the ZMDC. This was in the same month that the Kimberley Process said there were “credible indications of significant non-compliance”, with the chief concerns being “the evidence of government involvement in human rights abuses, smuggling and lax controls that compromised the entire chain of production”¹⁹ (Partnership Africa Canada, 2010).

The ZMDC formed Marange Resources, as a wholly owned subsidiary, to manage its interests in the diamond fields. Next, the ZMDC formed two 50:50 joint ventures with Core Mining Resources (based in South Africa), and Grandwell Holdings, registered in Mauritius (with ties to the New Reclamation Group, a South African scrap metal company). Grandwell and Marange Resources trade as Mbada Diamonds²⁰, and Core Mining Resources as Canadile²¹.

After just one year, five officials from the ZMDC²² and the chairman of Canadile, Lovemore Kurotwi, were arrested over an alleged US\$2 billion fraud. Canadile's operations were suspended, machinery confiscated and its directors barred from the country. The government issued arrest warrants for 11 other directors and shareholders of Canadile on charges of graft and corruption, mainly for smuggling diamonds worth over US\$100 million and selling them on the black market. Most were South Africans, living as fugitives in Zimbabwe. The ZMDC, through Marange Resources, assumed total control of the diamond claims held by Canadile.

¹⁹ The reason given by the government was to fix concerns raised by the Kimberley Process but more widely believed is that the government lacked the funds to finance the operations, and had already directed the control the mines and ZMDC to divert US\$12 million in revenues earned from its gold mines to Marange.

²⁰ According to reports, members of the Mbada Board included Robert Mhlanga as Chairman (President Mugabe's former helicopter pilot and a cousin of Mines Minister Obert Mpofu). ZMDC representatives included Sithengisiso Mpofu (sister-in-law to Minister of Mines, Obert Mpofu), and Dingiswayo Ndlovu (personal assistant to the minister).

²¹ Members of the Core Board include Lovemore Kurotwi (retired officer who played a senior role in the Gukurahundi massacres in Matabeleland and nephew of the late Lt. Gen. Vitalis Zvinvashe, retired former Commander of the Zimbabwe Defence Forces); Adrian Taylor (alleged to have worked as a mercenary in Sierra Leone); Yehuda Licht (Israeli diamond dealer, believed to have spent time in jail in Angola on diamond-related smuggling offences) and Danesh and Ashok Pandeya (active diamond smugglers in the DRC conflict). They claim to be partners of high-level people in the Zimbabwe government. Ashok is on the police wanted list in Thailand over fraud involving diamonds worth US\$100 million. (The Zimbabwean, 2010)

²² ZMDC officials arrested were ZMDC officials arrested include chief executive Dominic Mubaiwa, former board chairman Gloria Mawarire, finance and investment committee chairman Ashton Ndlovu, board member Mark Tsomondo and suspended company secretary Tichaona Muhonde (Mangena, 2010).



On November 9, 2010, it was reported that the ZMDC entered into three more 50:50 joint ventures to extract gems in the Chiadzwa district. They are:

- Sino-Zim, a joint commercial entity between the Chinese government and ZMDC
- Anjin of Anhui Foreign Economic Construction Company Limited of China
- Pure Diamonds, a Dubai-based company.

Other operators in Marange are said to include the Zimbabwe Republic Police, the Central Intelligence Organisation, and the National Prison Service (Ndlovu, 2010).

In January 2012, the ZMDC took over complete control of Sino-Zim, which had stopped operations over Chinese concerns that the fields allocated were of low value and little return, so not operationally viable.

The joint venture with Anjin is rife with speculation that the revenue is being used to pay-off a Chinese government US\$98 million loan to build the Robert Mugabe School of Intelligence in Mazowe. The agreement, apparently, is that the revenues will be transferred directly to Beijing without first going through the Zimbabwean treasury²³. In addition, there are reports of abuse of labour laws, forced labour and human rights abuse, with the Zimbabwe Federation of Trade Unions (ZFTU) turning against Chinese investors and asking them to respect labour laws or leave the country. In December 2011, over 600 workers went on strike over working conditions.

Calls for nationalisation to control revenue remittance

The MDC, as a member of the coalition government, has called for the nationalisation of all the Marange deposits²⁴. ZANU-PF disagrees. The MDC claims that unofficial estimates for Mbada alone for actual raw diamond sales in 2010 were US\$1,4 billion. Since the output was probably maintained in 2011, and raw diamond prices increased by 20 %, Mbada operations should be worth US\$1,7 billion dollars (Ndlovu, 2010).

In 2010, Finance Minister Tendai Biti told parliament that diamonds were not being properly accounted for with treasury only receiving US\$62 million from a total sum of \$300 million in sales from auctions alone²⁵.

²³ "Public concern has focused on the diversion of diamond receipts from far more pressing needs, on the fact that the NDC will benefit an elite few rather than the struggling general population, and on reports that the complex will include VIP recreational facilities and medical facilities – in contrast to the lack of health facilities for the general population – and a 'techno-spy centre'," Veritas said.

In particular, Veritas objected to a section of the agreement stating that the income from Chiadzwa diamonds mined by Anjin and Zimbabwe Mining Development Corporation would be placed in a special account for direct transfer to Beijing without going through treasury. Some observers have called this arrangement 'criminal' as all government revenues must go directly to treasury to be distributed through the normal budgetary system with parliamentary oversight." (Chimunhu, 2011)

²⁴ "Zanu-PF has reacted angrily to the proposal. "I will not allow him to destroy the mining sector with such strange ideas," Mines Minister Obert Mpofu said. If the MDC persisted with it, he said, Zanu-PF would push for the nationalisation of the entire mining industry.

The MDC said senior Zanu-PF officials were opposed to the proposal because they were enriching themselves by making private deals with foreign miners in exchange for rights to the fields and protection. The government has controversially granted licences to at least three companies owned by the country's intelligence agency, the police force and the prisons service. The companies were formed specifically to extract diamonds from Marange." (Moyo, 2011)

²⁵ "The Zimbabwe Mining Development Corporation (ZMDC) has indicated that an amount of \$174,2m should have been remitted to the treasury, while an additional amount of \$125.8m realised in January 2011 remains outstanding." (SAPA, 2011) (SAPA, 2011)

Lessons from Zimbabwe

The case study on Zimbabwe is more detailed than other case studies for specific reasons. Firstly, it neighbours South Africa and Botswana, so is more pertinent to this study. Its state-owned mining companies control the diamond industry, and calls for indigenisation of the mining sector to spread the benefits of resource extraction to all echo those of resource nationalism, albeit an extreme example.

Zimbabwe is resource rich with the mining industry forecasted to earn US\$1 billion in revenues in 2011, largely from its platinum, gold and diamonds deposits. Zimbabwe also has substantial coal and chrome deposits. Zimbabwe has the second largest reserves of platinum, a strategic mineral, in the world after South Africa. Zimbabwe is believed to be the world's seventh largest producer of diamonds.

FDI into the Zimbabwean resources industry, one of the few remaining sectors of the economy with significant growth potential, has shown a marked improvement since the GNU coalition government was formed in 2008/2009, the economy dollarised and super-hyper-inflation controlled. However, the greatest threat is the enforcement of the indigenisation regulations, which are likely to precipitate a serious decline in FDI into the mining sector and, consequently, the economy as a whole.

The Zimbabwean government's focus on the regulations has already resulted in a significant drop in FDI according to the Zimbabwe Investment Authority. Investment approvals dropped from approximately US\$1,2 billion in 2009 to US\$186 million in 2010, an 84 % decline in inbound investment. The regulations impact on small and medium mining enterprises is estimated to be severe, given the difficulty in attracting new investment because of increasing risk to investment and ease of doing business.

Stumbling blocks including political instability, inconsistent amendment and application of regulations, corruption, lack of institutional capacity and rent-seeking have jeopardised Zimbabwe investment ratings. While Mugabe insists that the measures are an effective way to advance the indigenisation of the economy, the current regulations appear unlikely to realise this objective. Instead, the reforms could conceivably undermine the viability of the entire sector and give the Zimbabwean government greater access to public resources than previously existed. This could stimulate higher rent-seeking, as well as greater patronage opportunities.

The regulations do not contain any requirements for increased hiring, greater education or training of black Zimbabweans in mining operations. They do not provide for the appointment of more black Zimbabweans to managerial positions within mining organisations. Rather, they are focused on the transfer of ownership and wealth, which will not meet the country's need for sustainable recovery in the economy. It remains to be seen how the people as a nation and the economy will benefit.

According to Index Mundi 2012, the unemployment rate in 2009 was 95 % compared to 80 % in 2005. They add the rider "figures reflect underemployment. True unemployment is unknown and, under current economic conditions, unknowable".

Another problem is the skills shortage and lack of capacity which are deteriorating yearly. Zimbabwean universities have produced many well-qualified professionals in the past. However, many of the better educated and more experienced Zimbabwean mining professionals have relocated to South Africa and elsewhere because of the prevailing political situation and the demand for their skills worldwide. The regulations would exacerbate this position, as it is likely that incumbent professionals would be less inclined to work in state-controlled companies. The School of Mines and the University of Zimbabwe are



badly under-capacitated in terms of teaching staff (here again, many are in South Africa) and the facilities are run down.

Despite the ZANU-PF's rhetoric on indigenisation, there is uncertainty whether the new regulations will be enforced. The GNU coalition partner, Movement for Democratic Change, opposes the regulations. A cross-party Parliamentary Legal Committee, which is responsible for scrutinising legal loopholes in statutory instruments, has found the proposed regulations unconstitutional and susceptible to legal challenge. Although Rio Tinto has agreed to surrender a 51 % stake in its local diamond unit Murowa, it is the only foreign-owned firm to voluntarily comply with the proposed law so far. This could be because diamonds are subject to different regulations and the ZMDC anyway controls most of the output with 50:50 joint ventures. In contrast, 175 other mineral mining firms offered only a 25 % stake in direct equity and a 26 % share in "social credits", for investments in areas such as roads, schools and hospitals.

THE IMPORTANCE OF POLITICAL LEADERSHIP AND EFFECTIVE INSTITUTIONAL CAPACITY: BOTSWANA'S SUCCESS WITH DIAMONDS

When Botswana gained independence from Britain in 1966, it was the third poorest country in the world with a GDP per capita of US\$70. This changed significantly from 1966 to 1995, when Botswana became the fastest growing country in the world. During this time, Botswana's average annual rate of growth was 7,7 %, and Botswana moved to being an upper middle income nation. In 2010, its rate of GDP growth was 8,6 %, which ranked 12th in the world. It has the best credit rating in Africa. In 2011, IMF statistics show Botswana's nominal GDP per capita as being US\$8 844, ranking it 65 out of 183 countries worldwide. By comparison, South Africa's nominal GDP per capita was US\$8 342, with a ranking of 71 out of 183 countries.

Botswana has a liberalised economy, solid macro-economic policies, an effective financial sector, good economic governance and a fairly well developed infrastructure after sustained investment. The country compares favourably with its peers, with the World Bank's 2011 Ease of Doing Business survey ranking Botswana 52 out of 183 countries, and third on the African continent. On the Corruption Perception Index compiled by Transparency International, Botswana was ranked 33 out of 178 countries in 2010, ahead of all its sub-Saharan African peers (African Economic Outlook, 2011).

Diamond mining has fuelled much of the expansion and currently accounts for more than one-third of GDP, 70 - 80 % of export earnings, and about half of the government's revenues. Botswana is also the largest producer of diamonds in Africa, surpassing Angola, South Africa and Namibia. Several other mining operations exist in the country, including the Bamangwato Concessions, Ltd (BCL) and Tati Nickel. Botswana stands out as a success story of state participation in the mining sector. Relative to its sub-Saharan African neighbours, the country has been singularly successful in developing its mineral sector, harnessing a large proportion of the rents for the state and responsibly managing the rents. This section examines Botswana's experience in more detail, drawing out the primary factors that enabled successful state participation in the country's diamond mining sector.

Botswana stands apart from many other countries in sub-Saharan Africa because of key success drivers.

1. Economics of the world diamond market and the Botswanan state's macro-economic management (particularly with respect to mineral revenues).
2. Low sovereign and social risk.
3. Competitive mining laws.
4. Responsible political leadership, effective institutional capacity and checks on political authority.
5. Integration with traditional authorities and openness to foreign support.

Strategic negotiations over diamond partnerships

The key to Botswana's success is that diamond revenues have been successfully managed by the government. The first act of Parliament was to vest the mineral rights in the state and not the ruling tribe. The sole diamond mining company, Debswana, is a joint venture between the government and DeBeers, and operates on a 50:50 ownership basis. Initially, in 1967, the state had only a 15 % interest in the first diamond mine in Botswana, Orapa. On the discovery of Jwaneng in 1977, one of the richest diamond mines in history, the government was able to negotiate an increase in ownership from 15 % to 50 %. In addition, Debswana also owns 15 % of De Beers internationally.

Currently, Debswana consists of five diamond mines. They are Orapa (1971), Letlhakane (1975), Jwaneng (1982), Damtshēe (2003) and Lerala (2008). In December 2004, Debswana negotiated 25-year lease renewals for all four of its mines with the government of Botswana. Through the 50:50 partnership, the government currently earns 47 % of its total revenue from diamonds and is able to sustain a low tax regime, where corporate taxes are capped at 25 %, and a value-added sales tax (VAT) was only introduced in 2001.

World diamond market, economic management and beneficiation

A single company, De Beers, has largely dominated the world diamond market, placing diamonds in a unique position in the minerals sector. At one point, De Beers controlled approximately 80 % of the world's supply of rough diamonds through its marketing cartel, the Central Selling Office (CSO). This dominant position has allowed De Beers to maintain relatively stable diamond prices compared to other primary commodity prices, and to raise the price it pays producers far above their production costs (Dunning, 2005). Diamond prices, therefore, have had less fluctuation than other minerals, moving gradually upwards in the longer-term. This factor has contributed to a sustained resource boom in Botswana, with no significant periods of depressed demand or falling prices (Maipose, 2008).

In addition, Botswana has achieved an unusual degree of bargaining power relative to De Beers, which has allowed the state to claim a sizeable share of revenues from its diamond production. Not long after the discovery of diamonds, it became clear that Botswana would become a major producer for the world market. Botswana capitalised on this by negotiating concessions from De Beers, which wanted to maintain control over production. These negotiations ensured that Botswana would benefit from diamond revenues for many years into the future.

Finally, the Botswanan government managed these mineral revenues and related macro-economic factors relatively effectively. Once diamond revenues came on line, the government pressured Debswana to bring them in gradually, rather than collecting these revenues as quickly as possible. A lack of absorptive capacity motivated this caution because the government feared they would not have enough new projects to spend the money on and that extra revenue would go to waste (Beaulier S. A., 2007 55-68.). In essence, the government wanted to use minerals revenues to expand the economy's productive base, rather than fund consumption expenditure. Furthermore, the government was able to maintain a stable (even depreciating) real exchange rate, in addition to rapidly accumulating foreign reserves, guarding the country from symptoms of 'Dutch Disease' (Poteete, 2009).

As part of Botswana's drive to diversify and increase production of value-added goods within the mining sector, De Beers opened the Diamond Trading Centre Botswana (DTCB) in 2008 to localise some sorting, cutting, polishing, and marketing. A sorting facility was built at a cost of US\$83 million and is claimed to be the most technologically advanced facility in the world. This facility has the capacity to process 45 million



carats per year. Through the DTCB, 16 diamond cutting and polishing firms obtain diamonds (about 20 % of the total). Known as 'sightholders', these firms have opened cutting and polishing factories in Botswana, creating roughly 3,000 jobs. In 2011, DeBeers and the government of Botswana announced that they had agreed to shift DeBeers' aggregation and sorting operation from London to Gaborone by 2013, effectively making Gaborone the major sales point for the company's diamonds. This will bring additional jobs to Botswana and may entail additional opportunities for diamond cutters, polishers and jewellers. (US State Department, 2011).

The government expects the allocation of rough diamonds for beneficiation to increase to US\$800 million over the next three years. This will be a significant increase from 2005 beneficiation which was US\$28 million and just over US\$400 million in 2010 (Government of Botswana, 2011).

Political leadership and institutions

Political acumen, and strong leadership and institutional capacity are undoubtedly significant drivers to success in the Botswanan mineral sector. For one, the first president of independent Botswana, Seretse Khama, showed keen foresight and decision-making in the interests of the entire country. Although his tribe stood to gain immensely from early negotiations over mining revenues, he deemed these revenues a national right instead of a mining right, so that they could be invested across the country.

This decision diffused tribal dissent that may have arisen over Botswana's newfound diamond wealth. Prior to and during this process, Khama negotiated with the major tribes in Botswana to convince the chiefs to vest power in the Botswanan state, which diminished tribal disunity and the potential for conflict (Acemoglu, Johnson, & Robinson, 2001).

Related to this progressive political leadership, a broad coalition formed around the ruling party in the early years. Despite being made up of groups with disparate interests, it remained homogenous because the ruling party pursued policies that bestowed benefits across a range of constituencies. The breadth and stability of this political coalition encouraged mineral sector policies geared toward long-term growth (Poteete, 2009).

Underlying this political co-ordination were efficient institutions, which were already in place prior to the discovery of diamonds. British involvement was limited during the colonial period (in part, because Botswana's diamond wealth was unknown). This enabled existing institutions to play a role in elite accountability in the negotiations around the mineral sector. In turn, the resulting co-operation between different interests within the government reinforced rules protecting private property. As all coalition members could share in the growing mineral revenues, none sought to acquire more than their fair share and derailing the current arrangement (Acemoglu, Johnson, & Robinson, 2001).

A final institutional feature is the structure of National Development Plans (NDPs). NDPs cannot be amended without unanimous legislative approval. This has constrained excessive spending and curbed rent-seeking by public officials. In addition, the government prioritises spending on projects that will bring the greatest rate of return, which is calculated for all projects before they are approved. These measures have restrained the growth of government expenditure, helping the government to weather downturns in the diamond market (Beaulier S. A., 2007 55-68.).

Integration with traditional authorities and openness to foreign support

Traditions and institutions rooted in tolerance also contributed to effective management of the mineral sector at the outset. One mechanism of accountability at traditional authority level is the *kgotla*, a form of assembly in which adult males can discuss public issues with the chief. This public participation in the political process fostered a sense of national pride and restricted the power of elites (Beaulier S. A., 2007 55-68.).

The Botswanan government also remained open to foreign support, systematically hiring foreigners to fill senior civil service positions and replacing them with locals only after they acquired the requisite expertise. This strategy helped to avoid patronage through a civil service run by nationals who did not initially have the required capacity. It also prevented the challenging tasks of resource management from overwhelming a low capacity bureaucracy. What it did, however, was provide the government with access to foreign technical skills and advice on managing mineral wealth for the benefit of the country (Beaulier S. A., 2007 55-68.) and (Maipose, 2008).



Chapter 5 The Latin American experience with nationalisation

The modern cycle of nationalisation and privatisation started in Latin America and is still a feature of the political landscape. The economic recovery of Brazil, the developments in Chile, political turmoil in Peru and volatile drama in Venezuela are all current and provide valuable insights for this discussion.

VENEZUELA: SOCIALIST IDEOLOGY AND AGENDA DRIVEN RESOURCE NATIONALISATION

Venezuela’s oil industry history can be roughly divided into four periods. First the discovery and initial production of oil (1912-1943), then its assertion of control over the oil industry (1943-1974). This was

followed by the oil boom and nationalisation of the oil industry (1974-1998), and the government’s attempt to regain control over what was regarded as an increasingly independent oil industry (1999-2003).

The Venezuelan government dominates the economy. There is considerable income inequality. The Gini coefficient was 0,39 in the second half of 2009. According to government statistics, the percentages of poor and extremely poor among Venezuelan households were 23,8 % and 5,9 %, respectively, in the second half of 2009. Real GDP contracted 3,3 % in 2009, indicating a decrease in government expenditures and private consumption as a result of a drop in oil prices.

The economic contraction continued in 2010 when real GDP decreased by 3,5 % during the period January-June 2010 compared with the same period of 2009. The Consumer Price Index increased by 27,9 % from September 2009 to September 2010, following increases of 25,1 % in 2009, 30,9 % in 2008, and 22,5 % in 2007.

Progressive nationalisation

Nationalisation gained traction in 1974 in Venezuela following the ascent to power by the Acción Democrática under the leadership of President Pérez.

The country officially nationalized its oil industry on 1 January 1976.

First mooted & introduced	Opening up
<p>1971-1972: Govt passed laws & decrees giving country effective administrative control over every phase of the oil industry (from exploration to marketing), & raised the effective tax rate to 96%</p> <p>1973-1974: Venez big push for OPEC massive increases</p> <p>1974: Perez elected and nationalisation gains traction</p> <p>1 Jan 1976: Hydrocarbon Nationalisation Law taking possession of the country’s oil wealth and enlarging the role of Petroleos de Venezuela, S.A. (PDVSA)</p>	<p>1990s: Govt introduced massive changes to the hydrocarbon legislation, the so-called “opening process,” to attract foreign investors</p> <p>1992-93: 3 contracts granted</p> <p>1993-95: 11 contracts granted</p> <p>1997: 3 contracts granted</p> <p>Total worth: \$4,17 bn allowing companies to participate in 32 oilfields</p>

(Stanley, 2008); (Crooks & Pons, 2011)

Closing-up	Re-nationalisation
<p>Nov 13, 2001: President Chavez signs the new Hydrocarbons Law</p> <p>Jan 2002: new law in effect. All oil production and distribution activities to be domain of state, with the exception of JVs targeting extra-heavy crude oil production. Under the new law, private investors cannot hold a majority stake in an exploration project. PDVSA has a majority stake plus operational control over the fields. Royalties were increased from 1% to 30% (later raised to 33.3%), and taxes raised from 34% to 50%. Govt gave foreign investors short notice to sign new contracts in compliance with new conditions.</p> <p>April 2002: Coup lasting 47 hours. Resulted from Chávez's controversial laws in November 2001, which attempted to strengthen government control over the state oil company, PDVSA</p>	<p>2007: ordered foreign oil companies operating in the Orinoco belt to give the state company a majority stake in the oilfields (though not the refineries) Main foreign companies operating in Orinoco are from the U.S. (Conoco-Phillips, Chevron, Exxon Mobil), France (Total), Italy (ENI), and Norway (Statoil).</p> <p>2008 April: ordered the nationalization of the cement industry.</p> <p>2008 April: ordered the nationalization of Venezuelan steel mill Sidor, (Luxembourg-based Terbium currently holds a 60% stake). Sidor employees and the Government hold a 20% stake respectively.</p> <p>2008 Aug: ordered the take-over of a cement plant owned and operated by Cemex, to meet home building and infrastructure goals.</p> <p>2009 Feb: Ordered the army to take over all rice processing and packaging plants.</p> <p>2010 Jan: Signed an ordinance to nationalize six supermarkets in Venezuela.</p> <p>2010 June 24, Said going to nationalize oil drilling rigs belonging to the U.S. company Helmerich & Payne</p> <p>2010 Oct: Said nationalizing 2 U.S. owned Owens-Illinois glass-manufacturing plants.</p> <p>2010 Oct: Said will take over the Sidetur steel manufacturing plant. Owned by Vivencia, which had two mineral plants appropriated by the government in 2008</p> <p>2011: ordered the nationalization of the gold industry and gave companies 90 days to form joint ventures with the state.</p>

Author compiled from various sources and (Wikipedia, 2010) & (Crooks & Pons, 2011).

The Nationalisation Law passed in 1976 led directly to the formation of the state oil monopoly company, *Petróleos de Venezuela (PDVSA)*, as a holding entity for the former private oil companies. The Venezuelan government sought a 'New International Economic Order' based on the right of less developed countries to have greater control over their resources. Prior to the nationalisation of the oil industry, the US oil producer Exxon Corporation had controlled more than 40 % of production.

In the 1990s, Venezuela opened up its policies and allowed foreign companies to manage specific oilfields. The election of Hugo Rafael Chávez Frías as president in February 1999 saw a new constitution being pushed through which allowed the government to nationalise any company that it regarded as 'in the national interests'.

Considerable tensions between Chavez and PDVSA culminated in the Venezuelan general strike of 2002-2003 to pressure Chavez to call early elections, and virtually stopped oil production for 2 months. The government fired 19 000 employees and only re-employed employees loyal to the Chávez government.

One of the sources of the tension was that Chavez wanted more control over PDVSA's revenues. After the strike, Chavez re-nationalising PDVSA and 10 % of PDVSA's annual investment budget was allocated to social programmes.

In the following years, PDVSA also established seven subsidiaries external to the oil industry in the agriculture, shipbuilding, construction and services sectors. These commitments have been at the expense of reinvestment and have had negative implications for funding of the company's development and expansion abilities. In 2010, as a consequence of the erosion of retained earnings for capital replacement and expansion, Venezuela was



International arbitration

as published by Reuters, January 2012 the largest cases pending are:

- “ConocoPhillips brought a major arbitration case in 2007 against Venezuela, seeking \$30 billion in compensation for stakes in two Orinoco projects, Petrozuata and Hamaca, and two joint venture exploration agreements in the Gulf of Paria.
- Two cement companies, Mexico's Cemex and Switzerland's Holcim, requested ICSID arbitration after Chavez's government took over the industry in 2008. They claimed a total of about \$2 billion in compensation. Venezuela said in November 2011 it had agreed to pay Cemex US\$600 million.
- Canadian miner Gold Reserve Inc filed for arbitration in late 2009 after the authorities seized its Brisas project, which sits on one of Latin America's largest gold veins. Canada's Vanessa Ventures has a similar claim from 2004 for a US\$1 billion-plus project.
- U.S. based oil service provider Tidewater Inc has petitioned ICSID and is hoping for about \$45 million in compensation after Chavez's government expropriated the assets of 76 service companies in May 2009.
- Universal Compression International Holdings, owned by Exterran Holdings Inc, was another company hit by the wave of oil service nationalizations in 2009. It requested arbitration over US\$400 million in assets.
- OPIC Karimum, a subsidiary of Taiwanese state oil company CPC Corp CHIP.UL, filed another case last June against Venezuela. OPIC had a minority stake in projects in the Gulf of Paria.
- In February 2011, Canadian gold miner Crystallex International Corp filed a demand for US\$3,8 billion, saying the Chavez government had unilaterally ended its contract for the huge Las Cristinas project.” (Reuters, 2012)

forced to negotiate a US\$20 billion loan from China, to recapitalize its oil sector. Furthermore, since nationalisation PDVSA has failed to address critical skills issues within the group.

Since the nationalisation of PDVSA, Venezuela's oil output has steadily fallen despite high prevailing oil prices. Production slumped from 3,2 million barrels per day in 1998 to 2,4 million in 2008.

Although having to reach out to the Chinese for assistance to recapitalize its oil industry, Venezuela assists Cuba with around US\$3,5 billion a year by sending it an estimated 115 000 barrels of oil a day, two-thirds of Cuba's consumption. Cuba in turn provides 40 000 doctors, intelligence and security experts and other workers. Venezuela is also funding infrastructure projects such as the expansion of the oil refinery at Cienfuego (The Economist, 2011).

Despite the problems that have faced PDVSA, the government has pursued an extended programme of nationalisation of other enterprises ranging from iron smelters and aluminium plants to transportation firms and food companies.

The nationalisation programme has been driven purely by ideological objectives. For example, the nationalisation of a cement plant owned by the multinational Cemex in 2008 was to give the government direct access to raw materials for its housing programme, while the inclusion of food security in Chavez's socialist programme led to the army taking over all Venezuelan rice processing and packaging plants in 2009.

In 2011, Chavez ordered the nationalization of the gold industry and gave companies 90 days to form joint ventures with the state

The control of state-owned enterprises such as the PDVSA are of cardinal importance to Chavez's political agenda as its revenues are used to fund government's social development programmes directly. However, the macro-economic impacts on Venezuela have been

serious. The inflation rate is among the highest in the world, and the country's multi-tier currency system has collapsed. Prior to nationalisation, levels of FDI were high but have subsequently declined dramatically.

Venezuela is an example of nationalisation being an instrument for conducting a populist as opposed to economically strategic programme. From Venezuela's experience, it appears that, despite having the natural resources and diversification potential to develop a strong economy, an economy under nationalisation driven purely by a socialist, ideological programme is not sustainable.

International arbitration against PDVSA

Presently the Washington-based International Centre for Settlement of Investment Disputes (ICSID) lists 18 cases on its website with other reports suggesting that Venezuela faces as many as 28 arbitration cases against the breaking of bi-lateral treaties through its nationalisation programme²⁶.

At the end of January 2012, Venezuela announced its intention to withdraw from the ICSID in the face of mounting arbitration over nationalisation and seizing assets. The government says that its decision is irreversible and, in future, all disagreements with foreign companies operating in Venezuela should be settled locally within its own legal system.

This results from the recent International Chamber of Commerce's (ICC) decision that PVDSA should pay Exxon Mobil Corp US\$980 million. The award was far lower than Exxon's claim, originally US\$12 billion and reduced to US\$7 billion. The ruling was regarded as a victory for the Chavez government over Exxon's investment into the Cerro Negro facility. However a larger arbitration on a separate suit filed by Exxon local subsidiary, Mobil Cerro Negro Ltd is still to be heard by the ICSID. (Wall Street Journal, 2012)

Details of pending cases as of January 2012 are given in the box on the previous page.

THE ECONOMIC PRAGMATISM OF BRAZIL AND THE SUCCESS OF VALE AND PETROBRAS

In stark contrast to Venezuela, Brazil has had a remarkable recent history of economic recovery. Brazil provides a range of examples of successful state participation and privatisation of state assets, as in the sale of telecommunication providers and, most notably, iron miner Companhia Vale do Rio Doce (CVRD), as well as of successful nationalised assets.

Brazil's state owned enterprises have been developed from scratch rather than taken over while already functioning. No nationalisations currently likely.

Privatisation of state-owned companies

Privatisation of state-owned enterprises in Brazil in the 1980s reflects the trends in Africa at the time. Driven by rampant inflation, Brazil urgently needed to finance its growing foreign trade deficit, attract foreign capital and technology to upgrade the country's infrastructure. Between 1980 and 1990 privatisations were confined to government selling off companies which it had taken over because of financial difficulties during the past three decades. The returns were insignificant.

²⁶ ICSID is an autonomous international institution established under the Convention on the Settlement of Investment Disputes between States and Nationals of Other States with over 140 member States. The primary purpose of ICSID is to provide facilities for conciliation and arbitration of international investment disputes.



Collor government

In 1990, the Collor government was elected with the mandate of inflation-targeting frameworks and accelerating privatisation to curb chronic monetary instability during the 1980s, resulting in high and volatile inflation and plunging currencies. By this stage, Brazil was experiencing rampant hyper-inflation (30 377 %) (IMF, nd). Between 1990 and 1992, 15 state-owned companies were privatized, yielding some US\$3,5 billion. The largest was the Minas Gerais Iron and Steel Mills, Inc. steel company for US\$2,3 billion in 1991, which accounted for nearly twice the revenue of all previous privatizations and sold. The Japanese holding company, Nippon Usiminasl, acquired 18 % of the shares. Most sales were exchanged for equity in state-owned enterprises for different instruments of public debt rather than for cash. In 1992, Collor was impeached on corruption charges.

Franco government

Under the Franco government (1992-94), privatization continued initially but with a greater emphasis on sales for cash. Eighteen state-owned enterprises were sold for US\$5 billion. The largest enterprise sold was the Brazilian Aeronautics Company (Empresa Brasileira Aeronáutica, Embraer). But, by 1994 only 25 state-owned enterprises had been dispensed, mostly in exchange for debt certificates and little hard cash. Other enterprises included chemical, fertilizer, and mining companies, with the steel sector wholly privatized by the end of 1994 (Hudson (ed), 1997). In 1993 Franco appointed Fernando Henrique Cardoso as Minister of Finance. In 1994 the administration introduced its Real Stabilisation Plan, known as *The Real Plan*. The result was a freeze in government spend and pegging the new national currency, the Brazilian real, to the US dollar.

Cardoso government

In 1995, Fernando Henrique Cardoso succeeded Franco as president and laid the foundations for the country's subsequent economic success.

“Perhaps the most important task of the Cardoso government in 1995 was to promote the reform of key sections of the 1988 constitution to reduce the role of the state in the economy, reform the federal bureaucracy, reorganize the social security system, rework federalist relationships, overhaul the complicated tax system, and effect electoral and party reforms to strengthen the representation of political parties.” (Hudson (ed), 1997.)

The Cardoso administration shifted the privatisation drive to the large state-owned enterprises responsible for the economic infrastructure (energy, transportation, and communications sectors). The first major privatization was the sale of the Espírito Santo Power Plants, Inc., followed by CVRD, one of Brazil's largest state enterprises. Petrobrás, was not included because of constitutional restrictions.

Vale

Today Vale, the result of the privatisation of CVRD and the subsequent restructuring and development of this enterprise, is the world's second largest mining company. The world's largest mining company is BHP Billiton in terms of market capitalisation (PWC, 2011). Founded in 1942, Vale was privatised in 1997 with the government retaining control through 12 golden shares which are a special class of preferred shares which give the government a veto over certain actions. Other arrangements include a combination of pyramid, voting and preferential shares.

Vale is the largest producer in the world of iron ore, and pellets and the second largest of nickel. It is also involved in production of manganese and ferro-alloys, copper, coal, potash, fertilisers, cobalt, platinum, steel, and precious metals.

Vale owns and operates the world's biggest iron ore province, the Carajás system, in northern Brazil. During 2007, Vale announced the effective go-ahead for a new mine in the system, known as Serra Sul, flagged as the largest greenfield site in our history and the largest iron ore project in the world. The estimated budget was initially stated as US\$10 billion. This would have been significantly higher, without the proposed mine's automatic access to the substantial infrastructure Vale has developed in the region over a period of decades, including railroads to the coast, a company-owned port with company-owned handling facilities, and company-owned super tankers. The project has been delayed largely because of difficulties in securing the necessary environmental licenses. Latest reports say that the installation license for Serra Sul, with 90 million metric tonnes of iron-ore production capacity per annum, should be issued in the first half of 2013 (Kinch, 2011).

Vale is currently listed on the São Paulo, New York, Paris, Hong Kong and Madrid stock exchanges. Its market capitalisation in December 2011 was US\$118 billion. It has a long-term growth rate of 20,1 %, shares trade for 4,9 times earnings and the equity/ratio was 31,4 % (Reese, 2011).

Petrobras

Brazil's Petrobras remains nationalised and successful. The company has its 1953 roots during Getulio Vargas's term of office and had the support of both the ruling party and the opposition in Congress. Petrobras was founded with the slogan "the petroleum is ours". These nationalist sentiments persist into the present democratic era.

Until 1997 Petrobras remained a monopoly in Brazil's domestic upstream oil exploration and production. In the 1960's, it diversified into refining and petrochemicals. Today Petrobras is a semi-public corporation. The state's direct and indirect ownership of Petrobras is 64 %. This is made up of the government owning 54 % of the common shares with voting rights, and the Brazilian Development Bank and Brazil's Sovereign Wealth Fund (Fundo Soberano) each controlling 5 %. The privately held shares are traded on BM&F Bovespa.

Petrobras ranks as the fifth largest oil company in the world after Exxon Mobil, PetroChina, Royal Dutch Shell and Chevron. It was ranked as the 22nd largest company by market capitalisation in December 2011 by FT500 (FT.com, 2011). The capitalisation is given as US\$ 156 billion. Business activities now include exploration and production, refining, oil and natural gas trade and transportation, petrochemicals and derivatives, electric energy, biofuel and other renewable energy source distribution. As of December 31, 2011, the Company operated in 25 countries, owned 132 concession contracts for 194 exploration blocks and had a number of subsidiaries, including Petrobras Quimica SA, Petrobras Distribuidora SA, Braspetro Oil Services Company, Braspetro Oil Company, among others (FT.com, 2012).

In 2007, Petrobras discovered a new offshore province crossing the Espírito Santo, Campos and Santos basins. The discovery was the largest in the world since that in Kazakhstan in 2000 and has the potential to transform Brazil into a global energy leader. Tupi fields (now renamed Lula Fields) form part of this basin. Former president of Brazil, Luiz Inácio Lula da Silva said they were a "second independence for Brazil" and current president, Dilma Rousseff, "that God is Brazilian". Petrobras holds a 65 % interest with the BG Group holding 25 % and Galp Energia the remaining 10 %. The fields are a technological drilling and pressure



challenge with drilling at depths of 3 000 metres and then another 4 800 metres below salt and rocks (Goldstein, 2010).

Petrobras then announced, in 2008, the discovery of the Jupiter field, a huge natural gas and condensate field which could equal the Tupi oil field in size (37 km east of Tupi). They are dubbed the *pré-sal* oilfields or *below the salt oilfields*. Brazil's development path is strongly linked to the success of the Tupi venture. Before the discovery, Brazil's proven and probable reserves were 20 billion barrels. They now sit at 50 billion barrels. "By 2020 Petrobras expects to be pumping 4,9 m barrels each day from Brazilian fields, 40 % from the *pré-sal*, and exporting 1,5 m: at the moment the country falls a little short of self-sufficiency. Today Brazil is the world's 11th-largest oil producer. By 2020 it should be in the top five." (Economist, 2011)

CHILE AND THE EXPEDIENCE OF A NATIONALISED CODELCO THROUGH DIFFERENT POLITICAL REGIMES

The Chilean model has achieved a high profile in emerging economies as a model for state intervention in mining. In November 2010, South African Minister for Economic Development Ebrahim Patel stated that South Africa was considering the Codelco model, while an ANC-commissioned State Intervention in Mining Study, undertaken by Dr Paul Jourdan and Prof Punday Pillay, found the Chilean model to be one of the most relevant to South Africa, among 13 country case studies and models.

The Chilean model advocates co-existence of the private and the public sectors in the mining sector and addresses similar challenges to South Africa, especially its inability to create jobs in downstream industries.

Key features of the Chilean model are a focus on strategic minerals, especially its copper, in which it is the world's leading producer. If South Africa were to follow the Chile's model, minerals such as platinum, chrome and iron ore may be targeted by the state for partial ownership. Another characteristic of the Chilean model is a multiple ownership structure, with the state playing a significant role in the ownership of resource assets. The model asserts a royalty tax of 5 % of the operating income of mining companies in certain sectors, and the Chileans also have a copper fund called the Copper Stabilisation Fund, a type of sovereign wealth fund that allows the state to impose supertax during booms to finance the fund.

Codelco

At the core of Chilean nationalisation entities is Corporación Nacional del Cobre de Chile, known as Codelco. The company is the largest copper producer in the world with an output of 1,6 million tonnes of copper a year, over 10 % of the world's copper.

Nationalisation of the Chilean copper industry was a progressive process starting under the presidency of General Carlos Ibáñez del Campo (1952 – 1958) and completed under the socialist President Salvador Allende (1970 –1973). Before the 1970s, US multi-nationals owned most of the Chilean copper mines. In 1971, a constitutional change enabled the government under President Salvador Allende to nationalise all the large mines. Codelco was formed in 1976 by the military government under General Augusto Pinochet (who ousted Allende). This led to the Chilean government controlling 85 % of the national copper production in the late 1970s (Spilimbergo, 1999). Under the militaristic Pinochet, the company was forced to hand over 10 % of its export revenues to the armed forces.

In 1980, Codelco's public ownership was included in the Constitution and private companies were re-admitted for investment in new large mines. A new code in 1983, revived the mining sector through restoring property rights and further incentives for private investment. This included no royalty payments

and a low rate of tax on profits. FDI into the mining sector increased from a yearly average in the period 1974 to 1989 from US\$90 million to US\$803 million in 1990. Between 1989 and 1995, the mining sector accounted for more than 50 % of FDI to Chile. This impacted on Codelco's share of output. Between 1980 and 1996, Codelco's share dropped from 84 % to 39 % while the share of large private mines rose from 6 % to 54 % (Spilimbergo, 1999).

Codelco as a state-owned mining company model

The importance of the Codelco model is that, as a state-owned mining company, it is not mutually exclusive of the private sector in the mining industry. The Codelco Law of 1992 authorises the company to form joint ventures with private firms in Chile to work unexploited deposits.

During the 2009 election campaign, Sebastián Piñera, Chile's president who came to power in March 2010, criticised Codelco, "for its inefficiency, griping over its stagnant output and climbing costs" (The Economist, 2010). This echoes concerns that have been directed at so many nationalised mining extraction firms around the world.

Concerns about Codelco's efficiency stem from a marked decline in Codelco's share of Chile's copper output, which declined from 75 % in 1990 to 32 % in 2009 in the face of aggressive private sector mining development in the country (The Economist, 2010).

As a precondition to membership of the Organisation for Economic Co-operation and Development (OECD), the Chilean government committed to a major reform of Codelco's governance structures. The newly independent (of government) board was instrumental in the appointment of former BHP Billion executive, Diego Hernández as Codelco's new chief executive. His mandate was to implement a proposed five-year \$15 billion investment plan to develop a new mine and to accelerate the expansion of the El Teniente and Chuquibambilla mines to raise output to 2,1 million tonnes per year by 2018.

Codelco and Anglo-American

A conflict with Anglo American in 2011, and ongoing at the time of writing in February 2012, demonstrates clearly the degree of resource nationalism that still exists in Chile in spite of a liberalisation of both Chilean politics and a general subscription to free-market principles in the rest of the economy.

Now a legal battle, the conflict has arisen over an option dating back to the privatisation of mines under Pinochet allowing Codelco to buy a 49 % stake in the Anglo Sur Project for around US\$6 billion (or half its estimated market value). But legal arguments are the contract makes it clear that if Anglo sells shares to a third party, the share in terms of the option would be reduced.

In October 2011, Mitsui & Co agreed to provide US\$6,75 billion in bridging finance to Codelco, to allow it to exercise the option. But Anglo American signed a confidentiality agreement with Mitsubishi four days before Codelco announced its intention to exercise the option. The agreement is for 24,5 % of the project for US\$5,4 billion, significantly more than Codelco had offered for its stake. The result was Anglo American causing political outrage in Chile. The case continues.

Conclusion

Like many other state-owned companies, Codelco's efficiency and viability is compromised by political patrimony. The company employs some 20 000 people, under a special subcontracts law, as operations



and services contractors. A further 25 000 or so work as investment company contractors (The Economist, 2010). Long after Pinochet's demise, Codelco is still subsidising the military with 10 % of its profits, while having to raise several billion dollars by selling corporate bonds into private sector markets. The company carries a US\$4,7 billion debt book.

Proposals for increased commerciality and efficiency include joint ventures with private companies to develop some of its copper reserves. There are proposals to dispose of non-core assets, such as a stake in an electricity firm, and to let Codelco retain more of its profits, including its military contributions.

While the current government under Pinhera is advocating moves towards the free-market oriented operation and management of Codelco, popular pressures may inhibit implementation. Tertiary education in Chile is largely private funded and there is popular support for a government funded tertiary system. The labour movement is pressing for a state subsidy of the private pension system. There is pressure for changes in labour laws and an increase in business taxes to pay for more social spending. Given these demands, there may well be opposition to any moves to privatise Codelco.

One concludes from this that the ring-fencing of the proceeds from nationalised mining projects are not always implemented by socialist governments nor are they necessarily utilised for delivery on social development programmes. The common link with Venezuela is, however, that the nationalised state-owned mining company still serves a political rather than economic agenda. Furthermore, while the original economic or political motivation for the original nationalisation may have long passed, suggesting that a reprivatization of the nationalised assets may be appropriate in line with the cyclicity of these events, the political expediency of successive governments may prevent this from happening.

PERU: MINING: SOCIALIST RHETORIC AND POLITICAL COMPROMISE

The appointment in November 2011 of leftist President Ollanta Humala was viewed by mining companies with some trepidation as he had been highly critical of the industry during his election campaign. For a large part of his political career, Humala had campaigned against foreign mining companies and lent support to the social movements opposing mining and foreign involvement in Peru. As a retired army lieutenant-colonel, he had positioned himself in previous presidential campaigns as a far-left candidate and modelled himself on Hugo Chávez of Venezuela.

Shortly after his appointment, populist protests erupted in Cajamarca against Minas Conga, a large mining project in the area. On 4 December 2011, in a completely unexpected move, Humala declared a state of emergency and used the military to deal with protests. Minas Conga, an expansion of Minera Yanacocha, Latin America's largest gold producer, is a US\$4,8 billion copper and gold project, and the largest single mining investment in Peru. The principal shareholders are Newmont Mining, a US company, and Buenaventura, a local company. The mine is scheduled to commence production in 2015 and has a life of mine of 19 years. It would make a considerable contribution of some US\$3 billion to the Peruvian fiscus and have a material impact on Cajamarca with 50 % of the tax collections staying in the region.

The protests were precipitated by environmental concerns about the allocation of several small Andean lakes as reservoirs or tailing dams for the mining operation and the threat to water supplies for farming. Newmont suspended the project and agreed to a review of the Environmental Impact Assessment (the project has subsequently been reinstated following negotiations around new tax agreements).

Popular protests in Peru have seen the recent cancellation of several large mining and power projects. Humala's support of the mining project, his move to the right by appointing a retired army officer as prime

minister and replacing leftist ministers with centrist technocrats, and citing popular opposition against Minas Conga as the reason, should be seen in this context.

This public conflict over the approval or otherwise of mining projects points towards the need for a review of the process and procedures for evaluating mining projects. A critical component of such a review would be a multi-stakeholder dialogue on the process.

At the time of writing (February 2012), protests continue over the Conga mine. On 18 February 2012, it was reported that thousands of rural Peruvians had walked the 870-kilometre route over 11 days in what has become known as The National March for Water and Life. Newmont has now said the company will not begin mining until reservoirs are built to supply water to local communities (Topf, 2012).

While the popular protests may have been seen as a form of resource nationalism, the anti-American sentiment was in fact premised more on environmental concerns than foreign investment in the industry.

Humala's political pragmatism on mining will be driven by his need as the new president to maintain a growth rate of 6 % in his first year of office. He clearly cannot do that if he takes a hard line on the mining sector. Humala's ability to sustain this economic growth during his term will be contingent on new FDI into the economy and, at present, this is dominated by mining. There are approximately US\$50 billion in mining, oil and gas projects planned over the next five years (The Economist, 2011).

Should the protest lead to a suspension of the Minas Congas project, it will have a serious impact on extractive industry investment into Peru.

In addition, Humala has committed to new social programmes which include a non-contributory basic pension of US\$90 a month for the elderly, a state-run child-care programme, as well cash-transfer scheme for poorer Peruvians and greater tertiary education support for poor students. Humala has also committed to a minimum wage, to US\$273 a month, an increase of 36 % (The Economist, 2011).

As in Africa, where some 80 % of the economy is in the informal sector, 60-75 % of Peruvian employment is in the untaxed informal sector (The Economist, 2011). The formal sector will therefore have to provide for the fiscal capacity to fund these social delivery programmes. With the dominance of mining in the Peruvian economy, a critical component of the funding will be derived from mining resource rents, especially the proposed windfall tax on mining profits.

While government has committed to respecting existing mining existing tax agreements, new projects such as Minas Congas will be subject to rent reforms, as the Peru government has negotiated a new tax on mining companies to accommodate the social delivery programmes. Mining companies will pay an additional tax on profits generating around \$1 billion a year for the Peruvian fiscus over the next five years. Some of the money will be ring-fenced to support projects in the communities in which the mines operate. Since the new tax replaces a voluntary contribution paid by mining companies to local governments, the royalty regime will also be amended.

There is also new legislation requiring that local communities be consulted before mining and oil and gas projects proceed. This will bring Peru into line with the ILOs convention on 'indigenous' peoples ratified by Peru in 1993 but never implemented.



The key issues evolving from the Peruvian situation are two-fold. Firstly it demonstrates the need to be able to clearly interpret the causality of popular anti-mining or multinational sentiment before ascribing it to resource nationalism or, at least, to be able to qualify the nature and extent of the sentiment. Secondly, Valdés' ideological about-turn may well be evidence of greater political and economic pragmatism evolving in Latin American politics.

BOLIVIAN NATIONALISATION: THE CYCLICITY OF NATIONALISATION, NEO-LIBERALISM AND RE-NATIONALISATION

Following the global depression in the 1930s, the Bolivian Government intensified its control over the extractive sector and this unfavourable regulatory environment for foreign investment precipitated the decline of the tin mining industry in Bolivia prior to the 1950s. However, it was the ideologically-driven nationalisation in 1952 that destroyed the most value from the sector.

Prior to the 1950s, the Bolivian tin mining industry was highly profitable, but there was widespread public resentment over the repatriation of private profits and deplorable working conditions for Bolivian mine workers. Low wages, poor housing and dangerous working conditions prompted violent disputes in 1918, 1923, 1942, and 1947, which helped precipitate the 1952 revolution.

Foreign-owned companies repatriated profits and did not reinvest back into the industry for exploration and the development of new ore bodies. The domestic political environment partly explained the low level of domestic reinvestment. Political instability, constant threats of confiscation and unfavourable foreign exchange regulations disincentivised reinvestment in the sector.

On 9 April 1952, the Revolutionary Nationalist Movement (MNR) set in motion the Bolivian National Revolution. The new President, Víctor Paz Estenssoro, quickly sought to nationalise the three largest mining companies, Patinio, Hochschild, and Aramayo. A commission, in which the Bolivian Mine Workers Federation (Federación Sindical de Trabajadores Mineros de Bolivia, FSTMB) participated, drew up the new law nationalising the mines, which was enacted on October 31, 1952. COMIBOL was established to run the industry.

Comibol

In the three decades after nationalisation, COMIBOL was broadly denounced as an unmitigated failure. A major driver of COMIBOL's inefficiency was the system of worker control in which union officials were invested veto power over the operations of mining managers. Consequently, the unions exercised extensive influence over the day-to-day management of the mining operations, and absenteeism and the theft of ore and mining equipment became prevalent. COMIBOL's productivity was further undermined by the government's decision to re-hire, at the unions' behest, workers discharged for political or health reasons before the revolution. Consequently, the total number of workers employed by COMIBOL increased from 24 000 in 1951 to about 36 500 at the end of 1955, while production declined by about 20 % over the same years.

Factors external to the mining industry also explain COMIBOL's poor performance. Bolivia's administration of the exchange rate functioned to limit exports of tin, and therefore curbed production volumes. COMIBOL received 1 200 boliviano per US dollar for its exports but the market rate moved between 4 000 to 14 000 boliviano per US dollar. This margin effectively operated as a tax on exports. The Bolivian government also redirected COMIBOL's profits to stimulate other sectors of the economy, particularly

agriculture and petroleum. Consequently, the industry was deprived of the reinvestment needed in exploration, development and maintenance. COMIBOL's commercial performance was also damaged by the collapse in the international tin price in the mid 1950s, after the Soviet Union increased tin exports and the US discontinued its stockpiling of tin and other strategic metals at the end of the Korean War.

International efforts to improve COMIBOL's performance in the late 1950s largely failed. The 1956 "Triangular Plan" coordinated by the US, the Federal Republic of Germany and the Inter-American Development Bank aimed to reduce the workforce, cut labour costs and increase efficiency. But when international oversight subsided, the government abandoned its effective commitment to the implementation of the plan. Production failed to increase. The workforce was rationalised, but labour costs increased because of a shift in the composition of the workforce to more technical staff. Strike activity was frequent and intense throughout the period.

The brief rise of neoliberalism and the return of resource nationalism (1980s - today)

The 1980s debt crisis in Latin America led to the subsequent neo-liberalisation of these economies. In Bolivia, President Gonzalo Sánchez de Lozada initiated sweeping privatisation of the petroleum, airlines, telecommunications, rail and electricity industries throughout the 1990s. But the neoliberal policies of the 1990s failed to translate into material benefits to the country's impoverished masses and its demise was triggered by popular protest, particularly among Bolivia's 'indigenous' population, in response to the privatisation of water in the Cochabamba Valley and the proposed natural gas pipeline to Chile. Although 80 % of Bolivians supported the nationalisation of the country's energy resources in a subsequent referendum, the government ignored the result. Following widespread public protest, President Mesa resigned and Evo Morales was elected president. In this highly volatile environment, foreign direct investment declined by 65 % from US\$567 million in 2003 to just under US\$200 million in 2005.

Morales' approach to nationalisation varied across the petroleum, natural gas and mining industries. His strategy was constrained by Bolivia's heavy reliance on foreign investment: In May 2006, the petroleum industry was nationalised after the government took on debt financing to pay Petrobras some US\$112 million to acquire its major refineries in Cochabamba and Santa Cruz.

Bolivia lacked the capital required to operate its extractive industries in the absence of multinational involvement and Morales bargaining position was enhanced by the global boom in resource and commodity prices. The external sale of Bolivian minerals rose by 15,3 % and hydrocarbons 54 % in 2005 over the previous year. Natural gas companies paid the government rents of between 50 % and 82 % of profits to access natural gas for the next 23 to 30 years. Limited nationalisation of the mining industry was introduced, such as the appropriation of Swiss mining giant Gencore's tin smelter.

The Bolivian Government enacted measures to ensure the long-term sustainability of extractive industries. For example, mining companies are required to provide ongoing and substantial training to Bolivian employees in the mines so that Bolivians will eventually occupy more senior positions in the industry. Mining companies are also expected to deliver social welfare and physical infrastructure projects to their local communities. The response of mining companies is mixed. Some see greater political stability and the potential to contribute to a social solution, others see inefficiency.

The intensification of state participation in Bolivia's extractive industries has impacted investment. Exploratory drilling in the petroleum sector slowed from 16 sites in 1998/9 to 3 in 2006. The Fraser Institute, a Canadian think-tank, found that Morales' government ranked 3rd from the bottom of a list of 65 countries



in terms of attractiveness for foreign investment in the mining industry (Venezuela and Zimbabwe were the only two falling behind it). It also ranked 57 out of 65 for security of investment.

Chapter 6 Experiences from other countries – Europe and Asia

THE PRIVATISATION OF THE MINING INDUSTRY IN MONGOLIA: SUCCESSES AND SUBSEQUENT MISTAKES

Mongolia is a relatively new mining country. The country is a poor and sparsely populated land that is politically independent of China. Yet, it is wholly economically dependent on its powerful neighbour as China buys over 80 % of Mongolia's exports and provides nearly half its imports (The Economist, 2011).

Mongolia's recent economic development stems from the mining boom taking place in the country. There are literally hundreds of small mines that are supplying China with their product. However, economic development in Mongolia is dependent primarily on two large mines in the South Gobi province bordering China. The copper and gold mine, Oyu Tolgoi, will commence production in 2013 and Tavan Tolgoi, a coal mine, is undergoing an expansion programme that will increase its production from 16 million to 240 million tonnes per years by 2040.

The Oyu Tolgoi capital construction project employs some 18 000 workers and is the largest undeveloped copper and gold mine in the world. The principal shareholder in the project is Ivanhoe, a Canadian company, and Rio Tinto. These two companies jointly hold a 66 % stake in Ivanhoe. This is in turn 49 % owned by Rio which manages the project. The project is projected to produce 450 000 tonnes of copper a year by 2020. Nonetheless, the involvement of these foreign companies has raised concerns about the critical investment that is required for a mining-led economic transformation for Mongolia (Reuters, 2012)

Most of the capital equipment, intermediate inputs and project and construction management for the two projects are being sourced from China. China, however, has yet to sign an agreement on its supply of power to the project for its ramp-up phase. It is highly likely that China will dominate the mines' offtake as well. As the road infrastructure from China has become increasingly congested, new rail infrastructure is planned to link Mongolia to China and Russia. The Eastern Mongolian link would provide access to South Korea and Japan.

Mongolia: 1997 to 2007

Mongolia embraced a free-market economy in 1990 and private ownership in 1992, following 70 years of Soviet rule. The first modern mining legislation was the Minerals Law of 1997, which privatised the state-owned mines that had previously been owned and operated by government. The law's intention was to encourage foreign investment that could help the country achieve its desired growth rate of 6 % - 10 %. This privatisation reaped immediate benefits for the country.

By 2005, the mining sector was contributing 18 % of Mongolia's GDP, 66 % of its industrial output, 76 % of its export earnings and 20 % of its public revenues. By 2007, the mining sector was generating nearly 50 % of the Mongolian government's revenues (The World Growth Mongolia Centre for Policy Research, 2008). Mining's share of GDP was 20,3 %, its share of industrial output was 65,4 % and its share of export revenue was 42,7 %. (Weston & Khand, 2007).

Mining FDI, as a share of total Mongolian FDI, rose from 46 % in 2001 to 68 % in 2005. Mining also accounted for 32 % of total manpower for the industrial sector. From an economic perspective, the government's privatisation of the mining industry had been remarkably successful.



Minerals Act of 2006

Due to the recent emergence of Mongolia's mining industry, the country had the advantage when developing a mining code of starting with a clean slate and adopting international best practice for its statutory regime. Building on the economic success of the reform of the industry, the 1997 act was subsequently replaced by the Minerals Act of 2006, which was directed towards increasing the state's benefits from mining.

Significant features of the Act included funded government equity participation in mining projects and, as part of a basket of incentives to further encourage investment in the mining sector, the reduction of royalty payments to 2,5 % (Weston & Khand, 2007). The 2006 act also provided government with 34 % ownership of strategic mineral deposits discovered by private sector companies. This was later repealed in 2009 partly due, to the adoption of a 68 % windfall profits tax as part of the reform (Bhatti, Buyukmutlu, Hashmi, Kouchouk, & Steiner, 2010).

Despite its significant fiscal contribution, the windfall tax was seen as a disincentive to mining investment, undermining the government's previously successful reforms, and this tax was in turn repealed as from 2011. While mining revenues contribute 40 % of total public revenues, the windfall profits tax accounted for 7,8 % of this amount, so this was a significant concession on the part of the Mongolian government.

External shock: 2008 to 2009

The Mongolian economy suffered a significant external shock in late 2008 and early 2009 from falling commodity prices and dropping export demand with the global economic downturn. The copper price collapsed by as much as 65 % from US\$8 700 per ton in April 2008 to US\$3 000 per ton in March 2009. Prices coal, zinc, cashmere, and crude oil also fell significantly. Only the price of gold retained its value. The economy retracted by 1,6 % in 2009 (The World Bank, 2010).

This shock exposed underlying weaknesses in the economic structure and policy environment and gave rise to speculation that Mongolia was a stereotypical example of 'Dutch Disease'.

In the second quarter of 2009, the government took measures on fiscal, monetary, exchange rate, and financial policies. Progress was made in mining sector reform and the Oyu Tolgoi Investment Agreement was finally signed. Leading up to the signing of this agreement, a number of policy issues were clarified and some of the key disincentives to mining investment were removed. Key to the agreement was the repeal of the Windfall Profits Tax, effective January 2011.

Despite its significant fiscal contribution, the windfall tax was seen as a disincentive to mining investment, undermining the government's previously successful reforms, and this tax was in turn repealed as from 2011. While mining revenues contribute 40 % of total public revenues, the windfall profits tax accounted for 7,8 % of this amount, so this was a significant concession on the part of the Mongolian government to attract investment.

The strong policy response by the government, helped by improved external conditions, particularly the rise in copper and gold prices, led to a rapid turnaround in 2010 with GDP growth reaching 6,1% (UNESCAP, 2011).

The IMF/World Bank survey on Ease of Doing Business, 2012, ranked Mongolia as 86 out of 183 countries.

Oyu Tolgoi project

Potential changes to licensing agreements may cause delays to Mongolia's two biggest development projects. Mongolian officials said in September 2011 that ownership accords with companies for the Oyu Tolgoi copper-gold and Tavan Tolgoi coal projects may be revised ahead of elections in 2012. Oyu Tolgoi, scheduled to be in production during 2013, is a joint venture between Rio Tinto and Ivanhoe Mines Ltd, while Mongolia awarded the development of Tavan Tolgoi to companies from China, Russia and the US earlier this year.

The national government's 34 % equity share in the Oyu Tolgoi is financed through a vendor loan arrangement organised by Ivanhoe and Rio Tinto. In addition to the investment agreement, a separate shareholders agreement was concluded with the government. Because of controversy surrounding the shareholders agreement after it was disclosed to the public, certain elements of the agreement, such as the interest rate of the loan, are being renegotiated.

The prime minister is also under substantial pressure from parliament to reopen negotiations on the 2009 investment agreement with Ivanhoe and Rio Tinto that was a prerequisite for these companies USD10 billion investment. In September the Mining Minister, Zorigt Dashdorj, said that the government wanted to discuss the investment agreement with Ivanhoe. "We are proposing to start the negotiations on changing the time frame within which the Mongolian side will increase its equity to 50 per cent from 34 per cent," he said (Hook, 2011).

The call for renegotiation is a clear demonstration of resource nationalism amid a resource boom, and the growing perception among Mongolia's politicians that the mining companies may have extracted too favourable a deal from the government. The development in September 2011 is regarded by the international mining community as being a watershed to see whether Mongolia's government is prepared to stand by its commitments particularly on rents and security of tenure.

In summary, the manifestation of resource nationalism in Mongolia is typical of emerging countries that have little experience in managing mining economies. There is a lack of understanding within the Mongolian government that the State's 34 % share grossly understated the benefits that they derived from the project with respect to employment creation, fiscal returns and economic multipliers. The government's demands in seeking a renegotiation of the original agreement completely overlooked:

- the original risk taken by the project developers
- the onus of the project developers to raise the capital
- the employment generated by the project
- tax revenue and foreign exchange earned via the project
- the fact that the project will account for one-third of Mongolia's GDP.

The demand also carried a significant risk for the Mongolian government in that:

- the government had underwritten long term warranties for the purchase of its equity stake that carried a significant element of market risk
- the changing of the goalposts undermined investor confidence in the country. The greatest investment risk facing a mining company is an unstable policy environment that cannot guarantee security of tenure of its mining rights or stability of government stakes, tax regimes and other key regulatory issues.



NORWAY: A LONG HISTORY OF STATE PARTICIPATION

Statoil, Norway's state-majority owned oil and gas company, is an example of a successful state-run enterprise. It is listed on both the New York and Oslo Stock Exchanges. The government uses the revenues from oil sales to invest in 8 600 listed companies across the world. Among Norway's social services are free education, healthcare and pensions.

The evolution of Statoil

As Norway began to explore its territorial waters for oil in the 1950s, the government defined a rents regime that heavily favoured the state, and required the international oil companies to assume the financial risk. When oil was discovered, the government legislated a state-centric governance and rent regime. Each oil field was required to halve its share with Statoil, Norway's state-owned mining company established in 1972.

By the early 1980s, the petroleum sector's share of GDP had nearly tripled from 6,8 % in 1978 to 16 % in 1981. The sector's contribution to state income grew from NOK10,78 billion to NOK57, 6 billion in 1996 (Claes 2002).

Rather than deregulating state participation in the sector, the new conservative coalition elected in 1982 sought to increase the state's direct participation in the industry. As March and Olsen note, "While the main tendency in Norway since 1945 has been to integrate organized interests, and thus social conflicts, into the administrative apparatus, the key argument of the conservative-centre program was that the state, to govern, needed a certain distance and independence from the various interests" (1989:100). The government took a direct ownership share, in addition to Statoil's share. But while this reform enabled the state to more directly control the benefits flowing from the oil fields, it also left the state highly vulnerable to the oil prices collapse in 1984.

The opening of new areas for oil exploration and development after the collapse of the Soviet Union prompted a change in the Norwegian government's policy, which led to the transformation of Statoil's role in the Norwegian economy. Rather than dictating the terms to the international oil companies as it had since discovery in the 1950s, the government was now competing to attract foreign investment in the region. This prompted the government to reduce taxes, abandon the sliding scale (which had given Statoil up to an 80 % stake in some operations), and the requirement for Statoil to have a 50 % share was lifted. As Claes observes, previously the oil industry required protection and the state was the bulwark against the intrusion of international oil companies. But now the Norwegian oil industry was highly competitive and Statoil needed to be just like the other players (Claes 2002).

Norway's entry into relevant European Union (EU) trade agreements also accelerated its shift towards greater liberalisation. Under the 1994 Europe Economic Area (EEA) agreement, Norway implemented free movement of goods, capital, labour and services, levelling countries' trade opportunities in the internal market. In 1992, the Commission "proposed a directive ensuring non-discriminatory and transparent procedures for granting of licenses for prospection, exploration and extraction of hydrocarbons" (Claes 2002).

The Norwegian government privatised one third of the shares in Statoil in 2001 so that the company could better take advantage of the global investment opportunities available. Outgoing President of Statoil, Harald Norvik, considered state ownership a liability given that it would be unable to handle the larger

capital requirements for new investment opportunities throughout Latin America, South East Asia, West Africa and the Caspian Sea (Claes 2002). Privatisation would give Statoil the opportunity to enter partnerships with private international companies.

The company was privatised and made a public limited company in 2001, listing on both the Oslo Stock Exchange and the New York Stock Exchange. At the same time it changed its name to Statoil ASA.

Statoil today

In 2007, Statoil merged with Norsk Hydro's oil and gas division. Named StatoilHydro, the new company reached a size and strength for considerable international expansion. The company changed its name back to Statoil on 1 November 2009.

Today, the state remains the majority shareholder with a 67% stake in Statoil. The Norwegian government's ownership of oil continues to be reviewed and is currently divided between its Statoil interests, and the state's direct financial interest (SDFI), an arrangement in which the government owns interests in a number of oil and gas fields, pipelines and onshore facilities.

Some reasons why Norway has succeeded

Today Norway has a population of 4 885 240 people. It is regarded as a high income country with an unemployment rate of 3,2 %. There is 100 % access to services.

Reasons given for the success of Norway's model in oil and gas by Cappelen and Mjøset (2009) include "Norway's policy of integrating natural resource-based industries with the rest of the economy through various linkages. Second, institutions were developed to handle shocks to the economy that are endemic to resource productions such as large changes in terms of trade. Also the separation of rents based on natural resource extraction from spending these rents, has gradually led to the establishment of a buffer fund that helps to create a more stable economic environment. Finally, the real returns from a large financial fund (currently roughly equal to GDP) help to finance public expenditures with less deadweight loss than before" (Cappelen & Mjøset, 2009).



Resource rents, the Australian experience and SIMS proposals

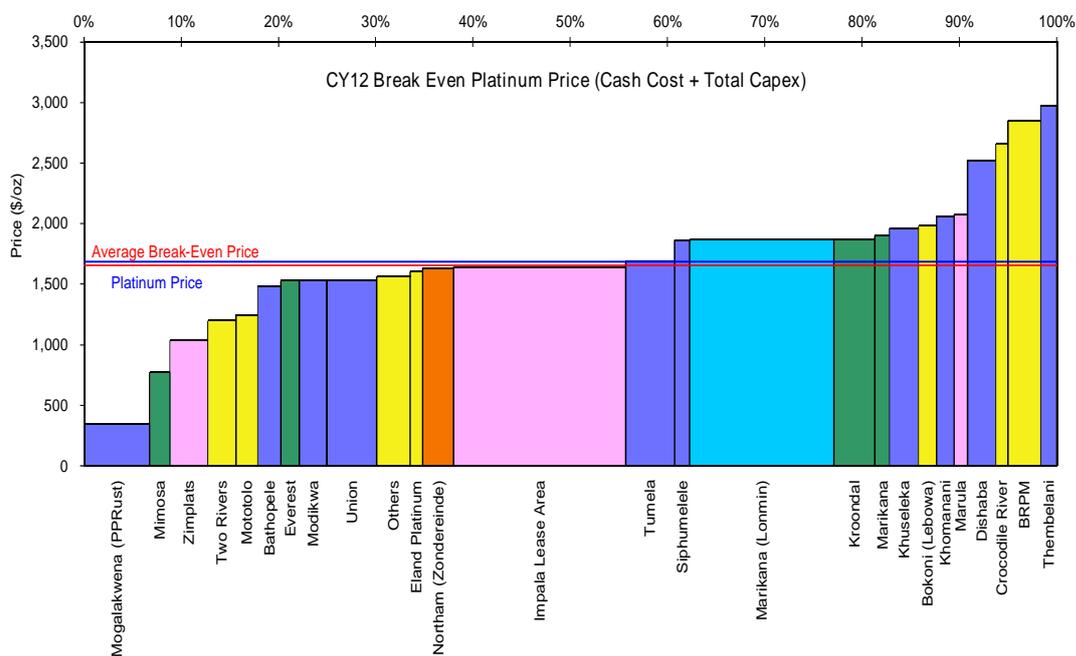
Kernel to any debate on resource nationalism is the question of resource rents. These are surplus operating profits over and above a fair rate of return that is required to incentivise private investment in the high-risk exploration and development phases of mining, after the deduction from revenues of directly productive costs.

While all mineral commodity producers receive the same price per unit of product, by the very nature of geological and mineralogical circumstance, every single mining operation has a different cost base. Mining companies' cost bases vary with:

- depth: working costs vary radically between open cast mines and underground operations
- grades: dictate the levels of income per tonne of ore mined, irrespective of working cost
- mineralogy: defines the efficiency of extraction of the ore and the proportion of the contained mineral that can be sold
- location: determines the overhead cost and cost of accessing the markets.

These aggregated cost structures for the community of mines within a specific product sector make up the cost curves for that sector. An example of a cost curve is shown below.

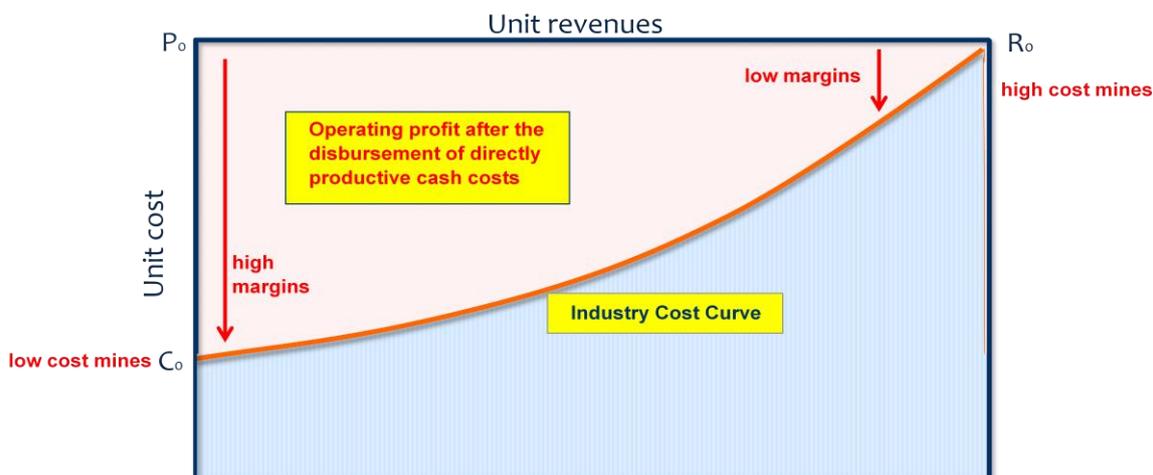
Cost curves for the South African platinum sector, 2012



Source: J.P. Morgan estimates, Bloomberg

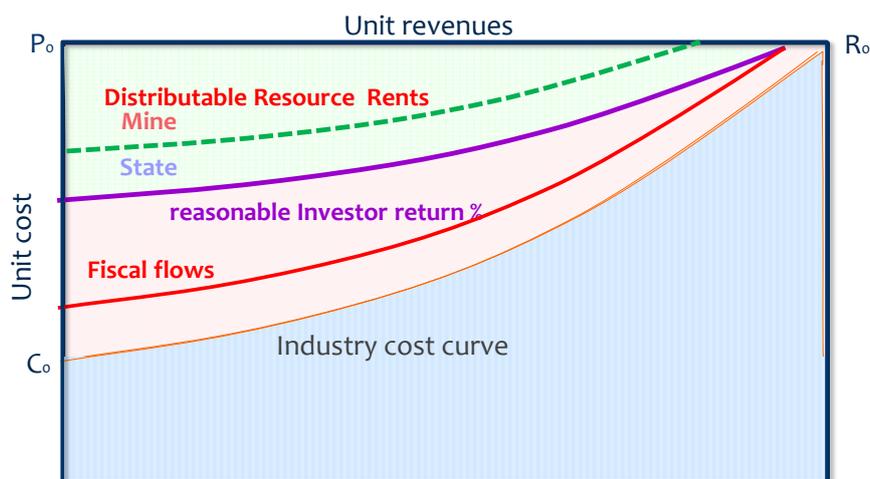
Quite simply, the margins between cost per unit of production and revenues derived from the sale of the product vary dramatically within the industry. This determines an individual operation's ability to contribute greater rents to government. For explanatory purposes, a simplified generic cost curve is used for this discussion on rents.

Generic industry cost curve



The resource rent is calculated by adding the fiscal flows (corporate taxes, royalties and other statutory levies such as skills development levies) and other statutory rents (such as the Social and Labour Plan commitments in the case of South Africa) to the direct productive costs of the enterprise. The surplus (if it exists) between this aggregated cost and the revenue is the resource rent, which is then split between the mining company and the host government.

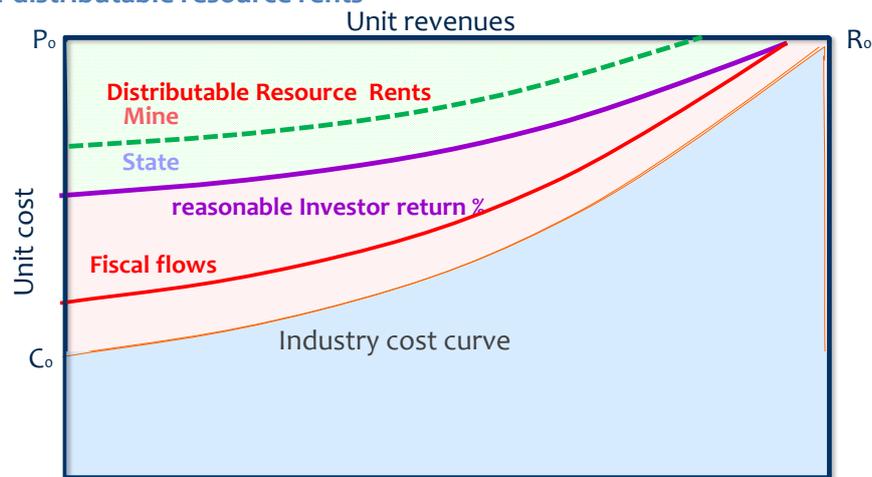
Defining the distributable resource rent



At any given point in a resource commodity cycle, the lower cost mines to the left of the curve will have surplus profit after a reasonable return, while the higher cost projects to the right of the curve will not. In other words, the payment of rent is effected after reasonable returns on investment have reported to the investor and the state and mining company share in the upside afterwards.

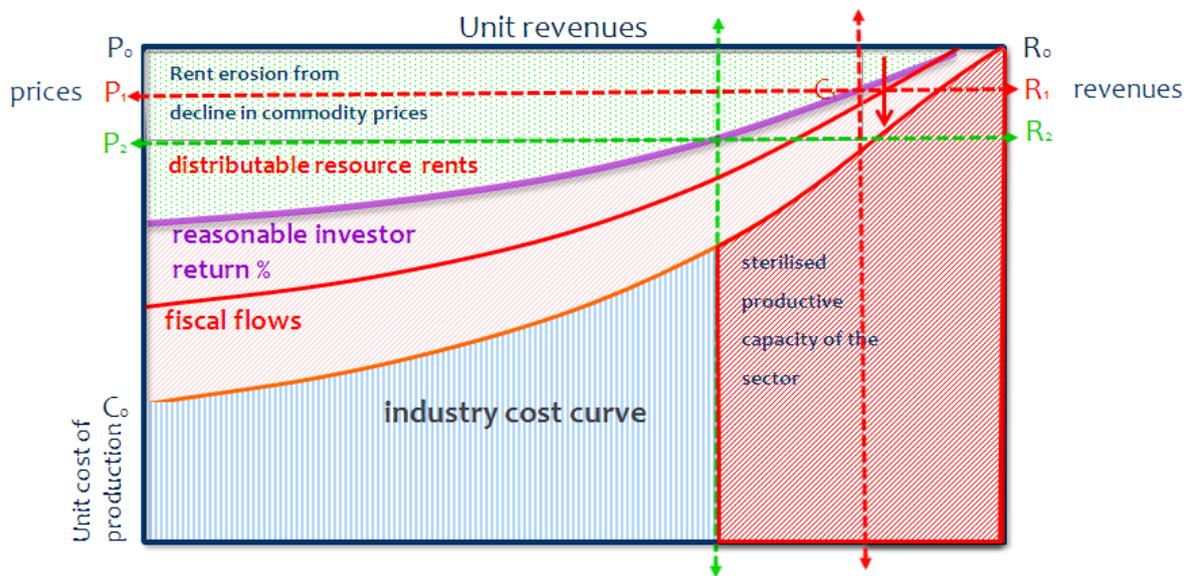


The sharing of distributable resource rents



In economies where resource rents are applied, the tax is usually between 20 % and 50 %. In theory, this should disincentivise high-grading (encourage mining at average grade), as it reduces the windfall of high grading to the miner. The problem with resource rents is that they are only generally available during periods of higher commodity prices. As soon as prices drop, as is shown in the figure below by the red and green lines of progressively declining prices, P_1 and P_2 , the concomitant revenues, R_1 and R_2 , drop and the resource rents are eroded.

Erosion of resource rents with declining commodity prices and sterilisation of productive capacity

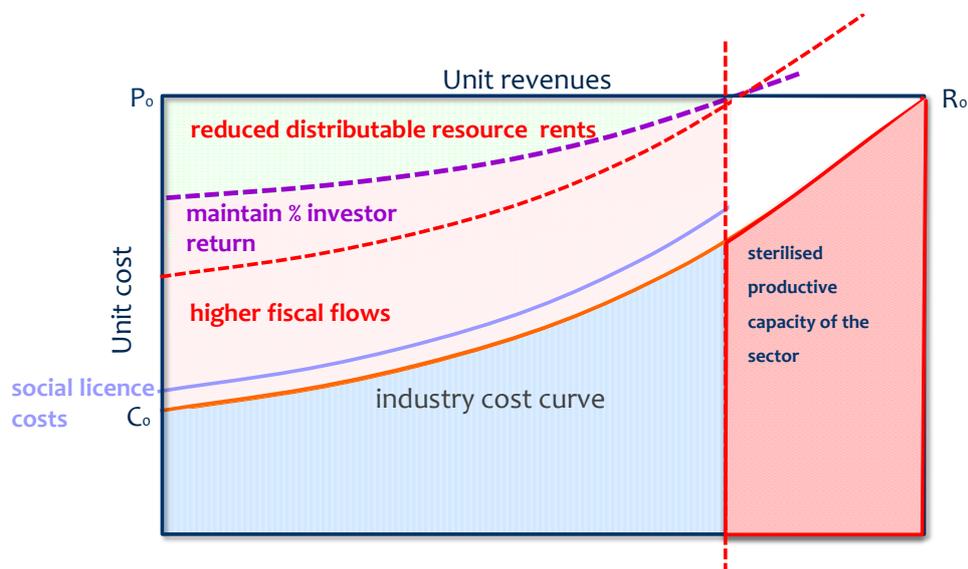


The effect of this is to make the higher cost mining sections to the right of the curve unviable. Under private sector management, sustained periods of low commodity prices will lead to the closure of these marginal sections and the productive capacity of the industry will be reduced. Along with this reduction in capacity will be:

- a decrease in the labour absorption capacity of the industry, i.e. fewer jobs in the industry and by implication in the secondary and tertiary sectors dependent on the sector
- a sterilisation of valuable mineral resources which may not be recoverable if the mine or section is closed down. This sterilisation negatively affects the economic potential of the country's mineral sector and hence the sector's capacity and ability to contribute towards economic development, employment and poverty alleviation
- lower economic rents reporting to the treasury.

A similar propensity to reduce distributable rent and sterilise productive capacity occurs when taxes (corporate taxes and royalties, not distributable resource rents) are raised.

The impact of higher levels of taxation on distributable resource rents



The fundamental difference between higher taxation and the distribution of distributable resource rents is that the rent has less impact on the fundamental competitiveness of the company, relative to the rest of the industry, as it operates on surpluses after reasonable returns. Higher taxation erodes distributable rent and hence returns to the fiscus and sterilises industry capacity by raising cost breakeven levels.

In the resource rent model, the threshold rate-of-return after which the rent share triggers is typically the average rate of return for the sector under consideration. As with the calculation of a Weighted Average Cost of Capital, it incorporates the juxtaposition of a risk premium on a risk-free rate, typically the long-bond rate of the country in question. This long-bond rate reflects generic country risk, while the risk premium reflects the sector specific risk. The risk premium is typically of the order of 5 % in emerging economies, but is variable with the stability of the political economy of the country. In South Africa, the current risk premium for mining projects is around 6 %.



AUSTRALIA AND RESOURCE RENT SHARING: GREAT ECONOMIC THEORIES AND SOBERING POLITICAL REALITIES

The Australian windfall tax is probably the best contemporary example of a resource rent tax. In the first instance, Australia is not an emerging economy and this demonstrates that the imposition of these taxes is not necessarily an emerging country instrument. Also, it demonstrates the political dangers of increasing the state's participation in the mining sector. Labour Government's attempt to introduce a resource rent regime had significant political ramifications, despite it doing so at a time when mining profits were unprecedentedly high and the economy's increasing reliance on the extractive sector was clearly disadvantaging other sectors of the domestic economy.

The government's rationale for introducing a new resource rent regime, initially known as the Resources Super Profits Tax (RSPT), was twofold. Firstly, the government argued that Australians should receive a higher dividend from the extraction of their non-renewable resources. The government declared that it is "committed to ensuring that the Australian people receive a better return on the profits made from extracting our resources and that a strong resource sector remains sustainable into the future. These are non-renewable resources which can only be extracted once. That is why it is important that the Australian community gets a fair return for them, to put towards building a better nation" (Australian Government, 2010). Secondly, the government argued that a higher tax was required to mitigate the risk of a "two-speed economy". The gains from the boom were benefitting mining-related sectors and the states where these were located (especially Western Australia and Queensland), while the rest of the country and the economy experienced higher inflation, interest rates and exchange rates.

A key feature of the public debate was the inability of the government to convey effectively its argument. The government's modelling estimated that mining investment would rise by 4,5 %, employment in the mining industry would increase by 7 % and mining production would increase by 5,5 % in the "long run. But the criticisms of the tax were many:

- it applied to existing projects, and therefore adversely changed the commerciality of current mining projects in Australia
- the profit threshold, which kicked in at 6 %, was too low to attract future investment
- it applied the same rate to all commodities, rather than applying different rates for different commodities
- the imposition of the tax would seriously tarnish Australia's reputation as a stable and competitive environment for long-term foreign investment.

In a highly complex debate about taxation that polarised the polity, the mining companies message triumphed: don't kill the golden goose. Public opposition was partly shaped by a highly combative but effective campaign by mining companies. In addition to an A\$22 million national advertising campaign, several mining companies announced suspensions to planned investments. It was unclear whether this was merely part of the campaign to influence the government's position. For example, Xstrata suspended an A\$600 million expansion to copper and coal projects that threatened 60 current jobs and 3 250 future positions. FMR Investments suspended plans to reopen the Eloise copper mine near Cloncurry.

The primary driver of public opposition to the RSPT was the view that the tax would make individuals worse off, because the mining industry was driving the Australian economy's continued strong performance. In particular, the RSPT was deeply unpopular among Labour government voters in key marginal seats in the resource states of Western Australia and Queensland. A major poll published during

the debate found that 78 % of voters in crucial marginal seats believed the RSPT should be made more acceptable to the mining industry or dropped. The Western Australian and Queensland premiers (a Labour leader) jointly opposed the tax.

Fearing electoral defeat, right-wing factions in the Labour Party organised to topple the prime minister, Kevin Rudd. With a federal election approaching in five months, the influential Australian Workers' Union switched its support from Rudd to his deputy, Julia Gillard. Gillard challenged Rudd for the leadership of the party (and therefore the prime ministership), and was elected unopposed on 24 June 2010.

Soon after taking office, Gillard negotiated an agreement with the major miners, including BHP Billiton, Rio Tinto and Xstrata, that set more favourable terms for the resources sector. The new tax, known as the Minerals Resource Rent Tax (MRRT), was legislated in November 2011, and takes effect in 2012. The tax applies to coal and iron ore, which represent nearly two-thirds of the value of Australia's exports and resource operating profits, and account for an even greater share of resource rents in the mining industry. A total of 320 companies will be affected by the tax, compared to the more than 2 000 companies affected by the proposed RSPT. Taxpayers with small amounts of MRRT assessable profits (i.e. A\$75 million per annum) will be excluded from the MRRT. The tax rate is 22,5 %, which represents a combination of a 30 % headline rate and a 25 % extraction allowance against the gross MRRT liability for all affected companies “to further shield from tax the important know-how and capital that mining companies bring to mineral extraction”.

The tax applies to profits above the long-term Australian bond rate plus 7 %. Any royalties paid to state governments will be credited against any MRRT liability, and MRRT paid is a deductible expense for income tax purposes. New expenditure is immediately deductible in full. This allows mining projects to access the deductions immediately, and means a project will not pay any MRRT until it has made enough profit to pay off its up-front investment. Losses from projects are transferable, such that only net profits from projects are subject to the MRRT. The government argues that this supports mine development because it means a taxpayer can use the deductions that flow from investments in the construction phase of a project to offset the MRRT liability from another of its projects that is in the production phase. In response to industry concerns about increased sovereign risk, the government allows a choice of market value or book value as the starting value for existing projects (Ernst & Young, 2010).

The introduction of the MRRT does not appear to have impacted investment in the sector. A record A\$430 billion in planned capital investment in Australian resources projects is in the pipeline. No mining company has cancelled or suspended a project because of the new tax. Although most Australians support the new tax regime, the Labour government remains deeply unpopular in the electorate, and the opposition has vowed to repeal it if it wins the 2013 election. A November 2011 poll found that 53 % of Australians support the tax, while 38 % are opposed to it. However, the most recent Australian Newspoll found that the Liberal-National Party opposition coalition leads the government by 54-46 %. Labour's primary vote is only 31 %, well below the 38 % of the primary vote the party attracted in the 2010 election.

The seminal issue around the resource tax was that the mining companies managed to muster popular support through a concerted and well organised campaign against the RSPT, which had major ongoing political repercussions. However, it is equally significant that the MRRT did not deter investment decisions because it incorporated a reasonable return for investors and only surplus profits were affected. It is also important that the quid pro quo for the tax to mining companies was that the tax was not ring-fenced to a particular project and was transferable as a tax offset to other new projects, thereby providing some incentive to new project development.



THE IMPACT OF PROPOSED RESOURCE RENTS ON THE COMPETITIVENESS OF SOUTH AFRICAN MINING PROJECTS

The ANC State Intervention in the Minerals Sector (SIMS) Report (SIMS, 2012) proposes a 50 % resource rent tax. This section looks at the impact this tax will have on project Net Present Values (NPVs) and Internal Rates of Return (IRR). A sliding scale of the proposed tax from no resource rent up to 50 % is used in the example.

In concept, the principle of resource rents during times of high commodity prices is a fair one. The state, as the owner of the natural resources shares in the upside windfall with the mining company. In times of lower commodity prices, the distributable resource rent over and above the fair return on investing, retreats back towards the fair return threshold under such a regime. Once it breaches this threshold on its downward trajectory, it ceases to exist.

The major advantage of capturing resource rents in this fashion is that it only triggers when a project is profitable and as a tax, does not impinge on the basic viability of mining project IRRs. Herein lies the fairness of the proposal. There are however fundamental issues with the approach.

Threshold IRR

The threshold IRR for the proposed South African resource rent tax is 15 % of the project IRR. It is not stated whether this is real or nominal, and this makes a considerable difference in the approach to a project, particularly given the difference between US and South African inflation characteristics and rates. All commodity prices are quoted in US Dollars and the revenue side of the equation is therefore primarily influenced on global geo-politics or geo-economics, against which US inflation is factored. South African revenues are however a function of this and the exchange rates, which may have different influences given the state of the local political economy in relation to its trading partners. The weaker the Rand because of poor trading conditions and/or the state of the South African political economy (and these factors may, and frequently are, related), the greater the rand income against the US Dollar commodity price. As costs are in Rand and the bulk of mining intermediate inputs are of South African manufacture, this is an advantage to the South African miner. It also makes the investment in the mining operation relatively cheap in US Dollar terms.

The difficulty arises in the repatriation of dividends which then become eroded in the exchange from Rand back into US Dollars. Juxtaposed on this is the political risk factor. These factors are taken into account in the risk premium assigned by investors to mining projects. A key component of the project valuation is the Weighted Average Cost of Capital (WACC) which heavily influences the project Internal Rate of Return (IRR). The WACC is also used alongside the discount rate to establish the Net Present Value (NPV) of a project which is determined on the basis of a discount rate. The rate typically used for junior projects is 15 % of the nominal NPV. An indicative real NPV is the nominal NPV less the country's inflation rate.

The problem with the 15 % threshold IRR is at this level, in a nominal model, the NPV, by very definition of the IRR, comes in at zero. It is therefore critically important to specify whether this threshold is real or nominal. For a nominal-terms model, a 15 % threshold is unrealistically low. In real terms, it is still low as it provides insufficient profit headroom for the investor and is not necessarily what investors may consider an attractive return. The resource rent IRR threshold, if used, should be calculated as the average investor return in nominal terms across the sector in consideration. Using a nominal as opposed to real model serves to factor in the differential inflation rates from country to country. The method proposed in the

SIMS document could in fact prejudice smaller, higher risk projects and for that reason the practice proposed by the Australian government of having an absolute quantum of profit (AUS\$75 million) protects these smaller projects.

Impact on and influence of the Weighted Average Cost of Capital (WACC) in a competitive investment situation

Key components of the WACC are the risk-free rate, which is generally accepted as the country's 10 year treasury or long bond rate, and the risk premium. The risk premium is the interest rate premium placed on a project by the investment community and reflects that community's perception on the degree of political risk they are prepared to accept. These rates naturally vary from country to country. The long bond rate and risk premiums rates are scheduled in the table below (comparative country rates). The long bond rates are gathered from a variety of internet sources while the risk premiums are consensus risk premiums from Bloomberg's for February 2012.

These various rates along with the mining tax regime for the various countries considered were applied to a model of a typical polymetallic deposit (copper, lead and zinc) to assess the extent to which a mining project with identical revenue and cost characteristics would compare from one country to another. The only differentiator here is therefore the mining tax regime. The NPVs for the standard project in South Africa is compared with those of the benchmark countries without the resources rent and with also with proposed resources of 50 % applied.

The financial model used for this analysis is an actual model from a South African project. The South African resource rent functions include the reduction of royalties to 1 % on the introduction of the resource rent tax.

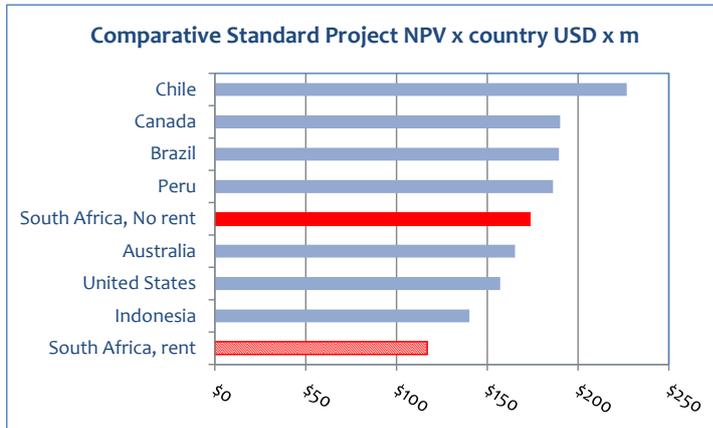
Comparative Country Rates

Country	Long-bond	Risk Premium	Corporate Tax	Royalty
South Africa	5.9%	6.3%	28.0%	3.6%
Australia	4.1%	5.8%	30.0%	5.0%
Brazil	8.5%	7.7%	25.0%	2.0%
Canada	2.0%	5.9%	28.0%	0.0%
Chile	2.6%	5.7%	17.0%	0.0%
Indonesia	5.8%	4.5%	35.0%	8.0%
Peru	6.8%	7.8%	25.0%	3.0%
United States	2.0%	5.5%	35.0%	3.0%



One can see from the figure below (comparative standard project NPVs by country) that without the proposed resource rent, South Africa is competitive with other countries in terms of its current basket of rents, including the recently imposed mining royalty. However, with the proposed resource rent of 50 % applied, the country becomes uncompetitive.

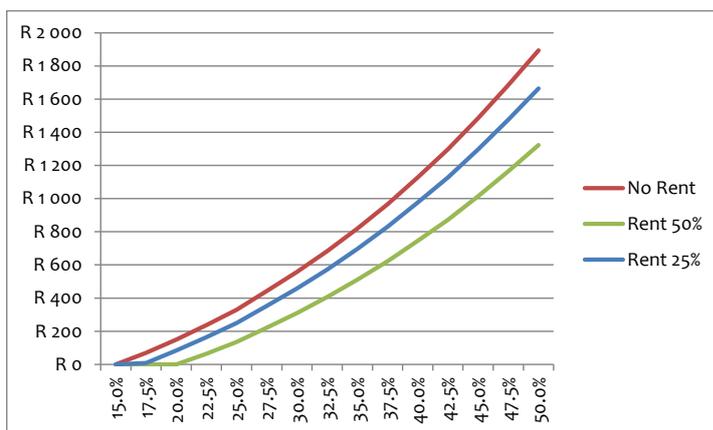
Comparative standard project NPV's by country



The proposed resource rent rate

From the above figure one can see clearly that in terms of the proposed rate that it renders the South African standard project uncompetitive relative to opportunities in other countries. However, from an investment perspective one also needs to consider the impact on project NPV and IRR on its own merits. The standard project used in this comparative analysis clearly demonstrates the difference between the rent and no rent scenarios for the project on the proposed 50 % level and also a 25 % level. The 25 % level is closer to the Australian model of 22,5 %. Please note that the Australian model only applies to coal and iron ore, and not to this polymetallic deposit.

Comparative standard project NPVs (US\$ m) by resource rent rate



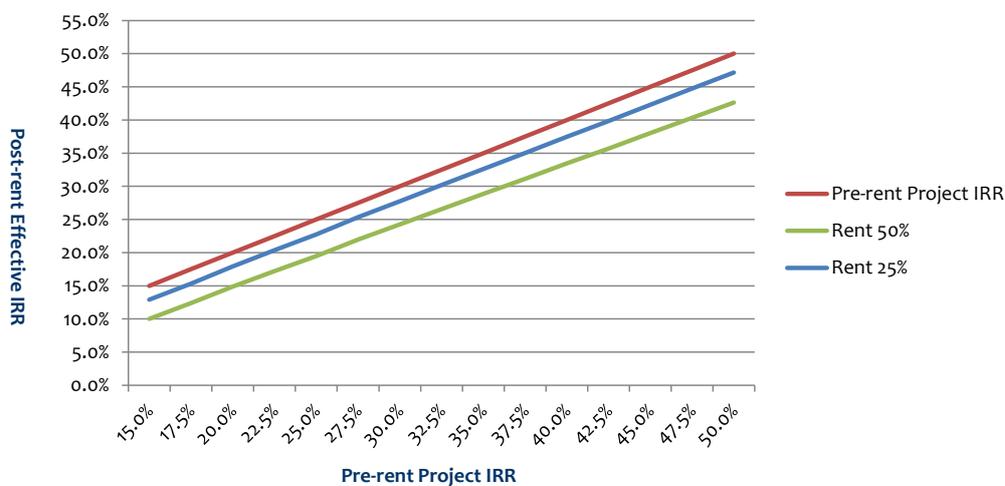
From these graphs, one can see that the difference between the NPV of a good project with a 50 % IRR with no rent compared with the same project with the proposed 50 % resource rent applied. The difference is R570 million against an original project NPV of R1,9 billion, a 30 % differential in NPV. The erosions of NPV

for lower IRR projects of 30 % and 40 % on the 15 % IRR threshold and 50 % resource rent tax are 44,4 % and 34,0 % respectively. This is a considerable amount of money in a competitive investment decision.

At the rate of 25 %, more aligned with the Australian model, the NPV erosion percentages are 12,1 %, 13,5 % and 17,9 % which are still significant but much more digestible.

However, while NPV is relative to the quantum of money originally invested in a project, ultimately it is the IRR that determines the attractiveness of a project. The impact of the proposed resources rent on project IRR is consequently of greater relevance to an investment decision.

IRR differentials with resource rents on varying project IRRs



The above graphs show relative to the NPV there is a less dramatic relative impact on the project IRR. At the higher level of a project IRR of 50 %, with a resource rent tax of 50 %, the post- resource rent tax is 42,6 %, and erosion of 7,4 % in IRR. The post-rent IRR for a 40 % IRR at rent tax is 33,5 %, (6,5 % erosion), and is 24,3 % for a 30 % pre-rent IRR (5,7 % erosion). The comparable figures for a 25 % resource rent tax for the 50 %, 40 % and 30 % IRR levels are 47,2 % (2,8 %), 37,5 (2,5 %) and 27,8 % (2,2 %).

Summary of the comparative analysis exercise

In principle, the imposition of a resource rent tax is preferable to increasing basic taxation and royalties as these would fundamentally undermine the viability of the higher risk, smaller exploration and mining projects. However, at the proposed resource rent tax of 50 %, in a competitive investment situation where a foreign investor has the choice of alternative projects in Latin America, Asia Pacific or North America, the resource rent tax would render projects uncompetitive. It must be noted that the South African aggregate tax basket is currently competitive.

At the lower resource rent tax of 25 % used in this analysis, the NPV and IRR erosion fall within the variability range of the Discounted Cash Flow (DCF) modelling accuracy and reduces this competitive element to a more digestible level. It is consequently clear that if a resource rent tax were to be considered for South Africa, the reasonable upper limit for such a tax would need to be of the order of 25 %. Any amount higher than this would deter investors.



Furthermore, a standard IRR criteria needs to be qualified in terms of whether it is real or nominal, as this has a fundamental bearing on the project economics. It must be considered in this respect that the smaller projects are typically much higher risk than larger projects and consequently the threshold IRRs for these projects will be higher for investors. In the South African empowerment arena, these projects are far more important to broad-based empowerment and direct mining benefit than the larger mining projects, which tend to be the preserve of the established economic black-empowered elite. It is therefore inadvisable to compromise these projects when the entire thrust of the SIMS imperative is to encourage broader benefit from the industry.

To prevent this from happening, should a resource rent tax be introduced, a sliding scale of IRR thresholds would be advisable so that one does not inhibit the collateral investment potential of these projects. The sliding scale should have higher thresholds for the higher risk, smaller projects. It would also be advisable to complement this approach with a value threshold similar to that accepted by the Australian government.

From the Australian case study earlier in the chapter, one of the lessons learnt was that a final negotiating criteria for the resource rent tax to be passed was raising the threshold to AU\$75 million. The other lesson learnt from the Australian experience is that the application of the resource rent tax should be circumspect. It should not be applied to all minerals as this could severely impact on investment in the junior exploration and development aspect of South Africa's mineral sector. Australia's resource rent tax is only to be applied to coal and iron ore.

Chapter 7 Lessons from the past, directions for the future

The history of government regulation of extractive industries in Africa and Latin America has broadly followed a pattern in which countries have set out to nationalise or increase government ownership of mining companies. However, when this approach produced near uniformly disastrous consequences for these extractive industries, this, combined with the rise in neoliberal thinking in the US, the UK and major multilateral institutions, stimulated greater liberalisation of mining regulation in most African and Latin American countries examined in this analysis. But this trend is now being met by a new shift in the way that countries think about the ownership of their resources. Many of these countries are articulating their frustration at the perceived inequity of multinational mining corporations (whose shareholders are almost entirely foreign) benefitting from the revenues of resources that belong to these countries.

The case studies yield important insights about the optimal method for regulating South Africa's mining operations.

The countries examined in this analysis generally nationalised their mining industries or increased government stakes in foreign mining companies in an attempt to increase that country's political and economic independence, and as a result of an ideological conviction that foreign private companies would not advance the interests of the country. There was also the perceived superiority of the regulatory model, for example in its ability to enhance the host country's financial benefits. In Zambia, the ruling socialist United National Independence Party nationalised the industry because Zambia's political independence was effectively redundant unless it was capable of exercising control over its own economy. Further, the government considered the private sector incapable of promoting the country's long-term interests. In contrast, the Pérez administration nationalised Venezuela's oil industry in the 1970s because it sought a 'New International Economic Order', based on the right of less developed countries to have greater control over their resources. Bolivian nationalisation in the 1950s was motivated by opposition to the repatriation of private profits abroad and the mistreatment of mining workers.

No matter what the state's objective was, it was rarely achieved in these countries. Instead, nationalisation and increased government ownership have been largely been destructive of the wealth-generating capacity of these industries. Nationalisation triggered declines in output in Ghana, Zambia and Venezuela. Mineral export earnings' share of total export earnings declined in Ghana and Zambia. Importantly, governments' interventions led to a collapse in FDI as private companies diverted their capital elsewhere. Nationalisation sabotaged the national accounts of Zambia and the DRC as those governments took on onerous debt burdens to prop up ailing mining companies. Political cronyism and endemic embezzlement were rife, especially in countries such as DRC.

While nationalisation often lacks the efficiencies or broader economic impacts of private sector ownership, it does not always fail or underperform. However, where it does there are identifiable, common reasons for failure. The principal causes of underperformance are:

- declining foreign and domestic investment in the industry and the broader economy
- a shortage of qualified management and operational mining staff
- inefficient state-owned enterprises
- a political culture that accommodates rent-seeking
- volatility in global economic and financial forces.



UNDERPERFORMANCE IN NATIONALISATION IMPERATIVES

Managing corruption

The extension of a government's reach into the operations and finances of private companies often provided the opportunity for corruption, especially in countries such as Angola, Equatorial Guinea, the DRC and Zimbabwe. Corruption has already impacted seriously on the governance of South Africa's mining industry in several ways. The most pervasive impact of corruption is that it erodes distributable rents that could be directed towards broader socio-economic benefit. The erosion of rents compromises a government's aspiration to deliver sustainably on health services, education and housing, let alone greater equitability of income for disadvantaged communities.

Governments that use rents and patronage to secure support from the public are vulnerable to wasting the proceeds of nationalisation. Under nationalisation, the administration will have greater access to mining resources than previously existed under private mining companies. Shafer argues that state ownership in Zaire and Zambia eliminated the political insulation that allows privately owned companies more shelter from political demands (Shafer, 1983: 96). The greater availability of mining resources as public resources can stimulate higher rent seeking, as well as greater patronage opportunities, potentially creating or exacerbating a culture of corruption. An additional consequence of greater rent seeking and patronage is that politicians do not attempt to stimulate growth in other sectors of the economy.

Other forms of corruption undermine the efficiency and productivity of the sector. Cronyism results in the appointment of inadequately qualified or experienced senior executives and managers in state-owned enterprises and undermines the public's confidence in government and the private sector. Uneconomically high levels of employment are maintained as a concession to populist political patrimony and to demonstrate a government's apparent ability to create employment.

Clear frameworks for governance need to be put in place and rigorously managed to avoid the devastating negative aspects of corruption that have crippled many privatisation initiatives.

Workforce capacity and experience

One of the more sensitive and inevitable aspects of nationalisation is the transfer of managerial and operational responsibility to a state-owned enterprise structure. Because of the public interest in state-owned enterprises, the structuring of executive incentive packages tends to be more conservative than private sector equivalents, which attracts a different type of professional. Also, with the exit of private sector staff on transfer, alternative local skills may not be readily available to assume the responsibilities of those whom they have replaced.

Nationalisation by nature usually transfers managerial and operational responsibility to state-owned enterprises. These often lack the comparable technical, operational and managerial expertise and experience in large, complex mining organisations enjoyed by their private sector predecessors, who are also typically more flexible and generous in their executive remuneration and incentive packages.

In Zambia, after nationalisation the country had almost no experienced Zambian mine managers or technicians (Shafer, 1983). This often led to poor decision-making, especially in pricing and investment allocation (Tangri, 1997: 24). Lack of experience and professional discipline extended down to operational

level. Mineworkers were often absent from work, lacked work-place discipline and occasionally engaged in illegal panning and smuggling of resources. This was especially prevalent in the gold and diamond mines in Ghana.

The consequences of the transition to state management have varied in terms of skills availability. Radetzki estimates that Venezuela's state-owned iron ore operations took five years to achieve a similar level of efficiency as the private sector, whereas it took Indonesia's tin industry more than 20 years "to develop a national management cadre of international quality standards after the industry was taken over from the Dutch in the early 1950s. In Zambia, where the government took a majority holding of the copper industry in 1969, the process has not yet been completed" (Radetzki, 1985).

As in any corporate merger or change of control in the private sector, succession strategies and continuity must be planned into the equation. The replacement of incumbent management and professional staff on ideological or cultural grounds compromises the possibility of a successful transition to state-ownership.

Inefficient state owned enterprises

By definition, nationalisation involves the transfer of ownership and management to state-owned enterprises. Once nationalised, because of the labour intensity of mining operations and the large amounts of money generated by mines, nationalised mines are vulnerable to being used to garner political support in patrimonial governments by creating employment for the worker constituency and enrichment of political allies. This is inevitably at the expense of long-term planning and operational efficiencies (World Bank, 1981, 1989, 1995), (Sandbrook, 1993), (Tangri, 1999) and (Shafer, 1983).

In socialist governments, state-owned enterprises are often used to maximise broader social goals, beyond the primary profit motive of most privately managed organisations (World Bank, 1981, 1995; Sandbrook, 1993). According to Tangri, state-owned enterprises face strong pressure to "provide employment and the redistribution of public resources" (Tangri, 1999: 21). For example, the state-owned mining company ZCCM in Zambia provided social services in mine areas that the state no longer provided, such as health and education services, farming, transportation and tourism (Benkenstein, 2009: 57). ZCCM also maintained high levels of employment in the sector, although production levels did not require it.

Furthermore, the transfer of ownership from the private to public sectors leaves state-owned enterprises susceptible to public demands on the company's profits (Shafer, 1983: 96; Tangri, 2009). Nationalised copper companies were consistently subject to union demands for excessive wages and benefits in Zambia (Shafer, 1983).

Public-sector managers may also be more susceptible to making political, rather than merit-based appointments (Diamond, 1987). This is consistent with the scholarship that shows a link between majority state ownership and corruption or poor governance (World Bank, 1997) and (Mbaku, 1999).

Finally, as Quinn and Conway point out, majority state ownership can facilitate the private enrichment of the political elites. (Tangri, 1999), (Quinn & Conway, 2008), and (Ross, 2001). With increased government control through ownership, the political elite may be able to extract more revenues from these enterprises and to do it less transparently (Quinn and Conway, 2008: 5).



Inadequate foreign and domestic investment

The research presented in this document provides no conclusive proof that FDI is necessarily impacted on by the nationalisation event itself. Rather it corrodes in the period of speculation leading up the event. However, the dramatic flight of investment from Zambia following the nationalisation of that country's mines cannot be ignored, while the apparent current hiatus in FDI into South African mining tends to support the corrosion.

In the cases presented, however, nationalisation did inevitably lead to lower foreign direct and domestic investment in the mining industry, and the nationalising countries' broader economies. For example, FDI in the Zambian copper industry had largely disappeared approximately 10 years after nationalisation. The appropriation of private assets by governments served as a disincentive to private investment in that country.

Nationalisation in an emerging economy typically takes place with the specific objective of providing the funding for politically-driven social delivery programmes. The longer-term working capital requirements of the state-owned mining operations tend to be subordinated to shorter term political patrimony. The return on a mining capital spend might range from six to ten years whereas the electoral cycle is typically four to five years. In Zambia, for example, mining revenues were used to support ambitious social spending programmes, rather than investment in exploration or plant and equipment (Fraser and Lungu, 2007: 8).

Upstream constraints from reduced foreign and domestic investment impede exploration and new project development. Capitalisation of new mining projects is usually the first to be affected, as it is the highest risk element of the development pipeline. This was illustrated in Ghana's case where nationalisation triggered a collapse in investment and exploration of new resource deposits was all but discontinued.

A further long-term consequence is that reduced investment leads to a progressive deterioration in mining infrastructure as maintenance and capital replacement are neglected. This results in a downscaling. Insufficient capital investment contributed to ongoing losses and the ultimate closure of some mines in Ghana. SGMC closed the Bibiani and Konongo mines which were incurring substantial losses.

While the impact of nationalisation tends to be focused on the consequences of lower levels of investment for the sector itself, the concomitant impact on the secondary and tertiary sectors is as important. Just as mining creates economic multipliers, the downscaling or inhibition of mining activity has a negative mirror effect.

Global economic and financial forces

Nationalisation frequently has unintended consequences such as inflation and escalating interest rates. In the case of Zambia, the allocation of mining rents to social spending programmes led to the (more bankable) practice of borrowing money to support the working capital requirements of the industry. The concomitant increases in government debt, combined with a contracting return of rent from the mining industry from eroded efficiencies and productive capacity, had serious economic impacts. The levels of Zambian sovereign debt became unmanageable and this resulted in a rapid increase in interest rates in the wake of the 1979 oil crisis. Consequently, during the 1980s, Zambia experienced a prolonged recession.

Similarly, in Bolivia, the state-owned tin mining company, COMIBOL, left many governments vulnerable to global economic developments, such as inflation and interest rates, as its profitability was seriously damaged by the collapse in the international tin price in the mid 1950s.

The key issue is that in periods of high commodity prices, state-owned mining companies weather the appropriation of mining rents for social programmes and governments are able to obtain debt to meet the working capital requirements of the industry. The problem arises with downturns in the economy as state-owned mining companies are less resilient to deteriorating economic circumstance and fail.

Achieving political objectives

A feature of state-ownership of mining companies is that they are not operated purely for profit but to support political agendas. Zambia's mining companies were classically unwilling to rationalise their workforce when the copper price collapsed. The Ghanaian government struggled with major difficulties with the workforce and the Obuasi community when it started privatising the mines, and Codelco's efficiency and viability has been compromised by political patrimony. The company employs some 20 000 people under a special subcontracts law who are employed as operations and services contractors. A further 25 000 work as investment company contractors.

Private management of mining companies

The benefits of private management of mining companies for the industry and for the broader economy are especially evident in those countries that shifted their regulatory approach from high levels of state oversight to a more liberalised regime. Broadly, liberalisation encompassed tax reduction (to 45 % in Ghana), lower royalty rates (3-12 % in Ghana, 3 % in Tanzania), removing restrictions on transferring dividends (Ghana), the ability for private, foreign-owned companies to repatriate profits (Ghana, Tanzania), greater accessibility for investors to mineral concessions, duty free imports of mining inputs (Tanzania), and exemptions from capital gains taxes (Tanzania).

As a result, Ghana has seen the proliferation of large, sustainable ventures since liberalising its mining sector. The contribution of mineral export earnings to total export earnings has nearly tripled since then. Tanzania's easing of investment and taxation regulations has triggered an increase in gold production. The sector has grown by 14 % annually, and mineral sales and FDI have grown exponentially. Importantly, the number of Tanzanians employed in the sector has grown strongly. Brazil's privatisation of Vale has helped create one of the world's largest mining companies. Mongolia's mining sector went from generating 20 % of its public revenues in 2005 to 50 % of those revenues two years later.

However, policies designed to optimise the economic performance of South Africa are inadequate alone. Instead, South Africa must undertake political reforms to ensure that the investment of its resource revenues produce successful social outcomes. As Karl notes, "the key to successful reform is primarily political, not economic" (Karl 1999: 44). For example, Venezuela created an investment fund to hold its oil revenues offshore, but this economically prudent measure was powerless to prevent rampant rent-seeking and undisciplined government expenditure. Although it is beyond the scope of this paper, attention needs to be given to the political-economic factors that will determine how successfully South Africa manages its resources, and discuss reforms to enhance its ability to manage those revenues. These reforms include:

- enhancing the role of state institutions to build constructive capacity for the development of the mining sector



- ensuring an effective judiciary to combat the pervasive effect of corruption on the industry
- developing greater transparency in public administration, particularly in relation to the governance of resource wealth
- clearly limiting the public sector's involvement in the management of private sector organisations
- streamlining and continuing to enhance the professionalism of the civil service.

In addition to implementing the political reforms, South Africa's political leadership must forge and maintain a long-standing commitment to investing the proceeds of the resources boom in its long-term productivity, rather than allocating the financial benefits to short-term, special interests. The experience of other countries in managing their respective resource booms, including Tanzania, Zambia, Ghana, Namibia, Mozambique and DRC, underlines the magnitude of this challenge. Even in Brazil, since the discovery of major oilfields in 2007, the increase in municipal revenues is matched by a corresponding increase in reported municipal expenditures. Furthermore, almost no resource-exporting country has been able to prevent its exchange rate from undermining the international competitiveness of its other sectors. There is no institutional or legislative panacea. Many stabilisation funds have been prematurely raided or channelled into poor investments.

Chapter 8 Resource nationalism and country risk ratings

There are common assertions that where resource nationalism sentiments are expressed or nationalisation takes place, local financial markets will suffer a severe setback or collapse. These assertions are made by governing and opposition-party politicians alike, and by economists and business leaders, even though an evaluation of public-domain market information shows no empirical evidence to suggest this. Rather, any economic damage that may occur is a function of the type of nationalisation employed. This damage would also be contingent on the introduction of instability to a market perceived internationally as constraining free market principles in a highly competitive global sector.

One of the arguments commonly mooted in opposing nationalisation of the extractive industry is it would unleash a tide of capital flight as investors of various classes withhold or withdraw investment. For example, in the context of the South African debate on the nationalisation of the mines there is speculation that this would have a major impact on the Johannesburg Stock Exchange (JSE), which is heavily weighted towards resource stocks. Clive Coetzee, economist for the provincial treasury of KwaZulu Natal, explains that “foreign capital flows will disappear or will become very expensive because of the downward turns (sic) in the country’s credit rating”, that “it is almost certain that (SA’s) credit rating will be downgraded” and that, in the end, “the economy will simply collapse” (Coetzee, C, 2010).

Inadequate attention has been paid to the differential investor reaction to different forms of resource nationalism and nationalisation²⁷. There appears to be general consensus that, on nationalisation, sovereign risk rates would deteriorate sharply, long-term bonds yield curves would spike, inbound FDI would cease and portfolio investments would be severely impacted, possibly resulting in the collapse of the local financial system.

Resource nationalism was identified by Ernst & Young in the Business Risks Facing Mining and Metals: 2011 – 2012 as the industry’s greatest risk.

“Resource nationalism is the biggest risk in 2011 and 2012. Because the mining and metals sector rebounded quickly from the global financial crisis, it became an early target to help restore treasury conditions. In a number of producer nations, concerns over ‘Dutch Disease’ or two speed economies have led to plans to tax mining more heavily, and provide tax relief to other sectors.

From the outset of 2011 we have seen numerous countries changing their fiscal environment (taxes, royalties), and some have invoked ‘use it or lose it’ clauses. Governments worldwide have also been looking to increase local participation in projects and we think that this trend will only increase.

South Africa’s new royalty regime came into effect on 1 March 2011, Ghana plans to double royalties on mining to increase government revenues, and the Australian Government’s proposed Minerals Resource Rent Tax is still on track with its draft legislation.” (Ernst & Young, 2011.)

Comparisons of the impact on country risk ratings of previous nationalisation events

There are many limitations to the method of historical data analysis employed in this study. For the purposes of this analysis, Venezuela, Ecuador, Bolivia, Australia, Kazakhstan and Russia were considered as they represent very different types of state intervention, but there is a marked lack of examples closer to

²⁷ These are possibly distinguishable by speed of enactment, scope of the industries affected, share of equity sought and the severity of expropriation (if at all), and all covered in other parts of this report.



home. Botswana, Zambia and Tanzania have little accurate data about financial flows at the time of nationalisation.

For practical purposes, a number of variables were not considered. These include the diversity of resources, size of the economy and levels of development, levels of policy transparency, changing global financial flows, various stages of commodity cycles and divergent local histories. Furthermore, in the interests of brevity, other instruments and metrics were ignored. Finally, the ten-year span may have been too short.

The conclusions presented in this section should therefore be considered in this light, providing an indication of the impact on country risk ratings of nationalisation events, rather than definitive findings.

Venezuela (2006 onwards). Since 2007, President Chavez has announced the nationalisation of companies or industries every year. To date, these have included the oil, cement, steel, glass, rice packaging companies, and gold in 2011. Previously, certain oil companies were nationalised in 1976, the gas industry was nationalised in 1971, and 50/50 public-private partnerships were introduced as early as 1943.

Australia (2010 announcement). A windfall-type resource rent tax (SRRT), dubbed the supertax was announced by Prime Minister Rudd in 2010, and was replaced by the MRRT, a less-steep tax promulgated to law by the succeeding Prime Minister Gillard in 2011. Notably, this example speaks of resource nationalism as opposed to nationalisation.

Bolivia (1993 and 2006 announcements). In 2006, President Morales announced the nationalisation of gas. This appeared to be a reversal of the 1993 policy where President Sánchez de Lozada announced 'Capitalisation Reform' – commonly regarded as privatisation, not nationalisation. Bolivia, too, has a history of prior nationalisation (e.g. 1952 nationalisation of the largest tin-mining concerns, under President Estenssoro).

Ecuador (2005 and 2010 announcements). Under President Palacio (2005-2007) some oil contracts, notably that of Occidental, were revoked, which heightened tensions between Quito and Washington, among others. In 2010, President Correa announced that Ecuador will enact reforms to a hydrocarbons law that aims to expropriate foreign company operations, unless they sign service contracts increasing state control of the industry. Crude oil is Ecuador's greatest national export.

Kazakhstan (2007 announcement). Kazakhstan holds about 4 billion tons of proven recoverable oil reserves. In 2007, President Nazarbayev warned that private companies, especially in the hydrocarbon sector, may be seized by the state if contractual irregularities continue. This nationalisation law was adopted in mid-2011, and would cause expropriation "as a last resort and pay compensation to investors"²⁸. To date, no expropriation has been noted.

Russia (2000/2001 nationalisation). With Putin's election as President of the Russian Federation in 2000, he began a series of reforms, including regaining state control (50 % +1) of the world's largest natural gas extractor, Gazprom. The media raised policy hints about possible nationalisation from 1998 onward, but with the unpredictability of the last years under Yeltsin, and the then virtually unknown Putin, the policy outlook was all but stable. Gazprom started life as a state-owned exploration company in 1989, and was privatised in the 1993-1997 period.

²⁸ "Kazakhstan moves to formalise 'Nationalisation'", Reuters Online, available online at: <http://af.reuters.com/article/energyOilNews/idAFLDE72NoT220110324>

Below is a table of countries showing the year in which nationalisation-style announcements, indicated as the “Base Year” (BY), were made. Where nationalisation was consequently enacted or enforced, these years are indicated in yellow. For Bolivia and Ecuador, two recent ‘periods’ of nationalisation are considered, labelled A and B, respectively.

Note: the same base years apply to all tables in this section.

Countries subject to resource nationalism, illustrating the base year (BY)

Country	BY-4	BY-3	BY-2	BY-1	BY	BY+1	BY+2	BY+3	BY+4	BY+5
Venezuela	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Australia	2006	2007	2008	2009	2010	2011				
Bolivia A	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Bolivia B	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Ecuador A	2001	2002	2003	2004	2005	2006	2007	2008		
Ecuador B			2008	2009	2010	2011				
Kazakhstan	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Russia	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003

Country ratings

A sovereign credit rating indicates the risk profile (probability) in the opinion of credit ratings agencies of a national government defaulting on its external foreign currency denominated debt. Sovereign credit ratings therefore inform the risk premiums for lending money to governments. In the case of developing countries, these assessments serve as a proxy for the investor climate in that economy. The models constructed by the credit rating agencies for these assessments are premised on political and economic risk factors such as:

- sovereign debt levels
- the stability and consistency of policy
- economic growth
- foreign exchange controls
- devaluation or volatility of monetary regulation
- civic disturbances, mass action, levels of internecine conflict and fragility of regime.

In general, ratings agencies are forward-looking and pre-emptive, discounting the influence of short-term developments and considering rather their influence on long-term trends. For example, in reviewing Standard and Poor’s (S&P) ratings used in this section, it may appear that in all, but one case, the countries’ ratings steadily improve in the years after the nationalisation announcement (BY+). This is because, by the time nationalisation is announced, credit ratings agencies have often pre-emptively downgraded the relevant countries and accounted for the risk (Business Day, 2011) and (Standard and Poor’s, 2006) Similar trends are seen using the historic data from Fitch, a competitive agency. Here, too, countries seem only to fare worse before the announcement (in BY), with Putin’s ‘new’ Russia being the exception as leadership changes occurred in BY+2. Nonetheless, even there an improvement is seen by BY+5.



Standards and Poor's sovereign long term (foreign currency) credit rating

Country	BY-4	BY-3	BY-2	BY-1	BY	BY+1	BY+2	BY+3	BY+4	BY+5
Venezuela	B	CCC+	B	SD	BB-	BB-	BB-	BB-	BB-	B+
Australia	-	-	-	AAA	AAA	AAA	AAA	AAA	AAA	AAA
Bolivia B	B+	B	B-	B-	B-	B-	B-	B-	B	B+
Ecuador A	CCC+	CCC+	CCC+	CCC+	B-	CCC+	CCC	CCC-		
Ecuador B			SD	SD	B-	B-				
Kazakhstan	BB+	BBB-	BBB-	BBB-	BBB	BBB-	BBB-	BBB	BBB+	
Russia	-	-	BB-	BB-	BB-	SD	SD	B	B+	BB

Source: Standard and Poor's.

In the above and below tables ratings move from AAA (best) though AA, A, BBB, BB, B, CCC, CC to C (worst), with “+” and “-” for further differentiation. Defaults or partial²⁹ defaults are indicated by ‘SD’ or ‘RD’, respectively. The tables reflect ‘first rating grade change’ marked in each of the given years, not averages or ratings at set dates. Where ratings were not given for a certain year, the previous rating was maintained.

Fitch's sovereign long term (foreign currency) credit rating

Country	BY-4	BY-3	BY-2	BY-1	BY	BY+1	BY+2	BY+3	BY+4	BY+5
Venezuela	B+	CCC+	B+	BB-	BB-	BB-	B+	B+	B+	X
Australia	AA+	AA+	AA+	AA+	AA+	AA+				
Bolivia B	-	-	B-	B-	B-	B-	B-	B	B+	X
Ecuador A	-	CCC+	CCC+	B-	B-	B-	CCC	CCC/RD		
Ecuador B			CCC/RD	CCC	CCC	2011				
Kazakhstan	BB+	BBB-	BBB	BBB	BBB	BBB-	BBB-	BBB-		X
Russia	-	-	BB+	BB+	BB+	CCC	CCC	B	BB-	BB+

Source: Fitch.

From the above tables there is no empirical evidence that any of the countries ratings are affected by state participation or nationalisation announcements. Note that the credit rating of Australia remains unaffected by the controversial law imposing major resource rent tax in 2010. Similarly, it appears that a moderate, slow and predictable policy of nationalisation, if understood to be consistent with an (achievable) goal of an effective social delivery programme can create a more equitable socio-economic system. This, in turn, will reduce civil instability and enhance the stability of the political economy of the country.

In the case of South Africa, a key driver of that country's sovereign rating is the perceived policy stability (which excludes nationalisation). Should this, however, not prevail, and especially if a fast and expropriatory policy is embarked upon, South Africa's 'policy stability score' (as assigned by the ratings agencies) would likely deteriorate, possibly leading to a downgrade in the sovereign rating. Depending on the type of state participation, the expansion of the sovereign's state-owned enterprise portfolio would have to be funded by a sizeable increase in government debt, which could also trigger a downgrade. While

²⁹ where a foreign debt commitment was not honoured in the relevant year

South Africa’s sovereign current debt level is regarded as sustainable, Moody’s (another ratings agency) has already noted that this assumption may not hold over the longer term.

The indications from the tables are that downgrading a country’s credit rating, and hence its risk premium, takes place pre-emptively during the evolution of a resource nationalism objective and not on the event itself. The event may even lead to a modest upgrading of the rating, reflecting a possible combination of an increase in fiscal revenue with an end to political uncertainty and speculation as to the nature and extent of the imperative. This does not imply that outright property seizure by government is disregarded by rating agencies.

Long term bond yields

The interest rates of long-term bonds, more commonly referred to as long bonds, are a direct reflection of the stability of the political economy of the issuing government. The higher the long bond rate, the less stable the country and the higher the political risk. As such, these bonds are by no means risk-free. They reflect innate political risk, while individual projects will attract a further risk premium on top of this risk-free rate. The aggregation of the risk-free (long-bond) rate and the risk premium determines the investment threshold that is acceptable to investors. This is an important concept for the calculation of a reasonable return in a distributable resource rent, split between government and a mine.

The table below lists the yields of ten-year bonds (long-term bonds) on the first of January in each of the respective years. Only two countries produced data for the appropriate periods, as they were the only two to meet the qualifications of having governments that had issued a foreign-currency denominated ten-year bond during the period, and having trading volumes that were significant enough to give meaning to the price.

Long bond yields

Country	BY-4	BY-3	BY-2	BY-1	BY	BY+1	BY+2	BY+3	BY+4	BY+5
Venezuela	28.4	29.3	21.01	14.02	10.75	5.19	13.34	14.39	13.88	17.52
Australia	5.21	5.886	6.327	3.985	5.643	5.53				

Source: Bloomberg

The above table shows that, around the announcements of nationalisation, Venezuela’s yields begin at an apparently high base in BY-4, and diminish (show less risk) to show single-figure yields in BY +1 (2007), after which they steadily rise (showing more risk). The declining yields could be attributed to the government’s enhanced income following its acquisition of additional assets. However, over the medium to longer term, this benefit fades and yields rise to pre-nationalisation levels. It is not clear whether the resource rent tax had any influence on Australia’s long bond yields. It is worth noting that, for Australia, the bond yields also positively correlate with monetary policy rates and inflation, both of which rose in BY+1 (2011).

From the above, it cannot be stated categorically that a resource nationalism event will necessarily be followed by an immediate, sharply increased risk premium.



Inbound FDI

FDI can be made by:

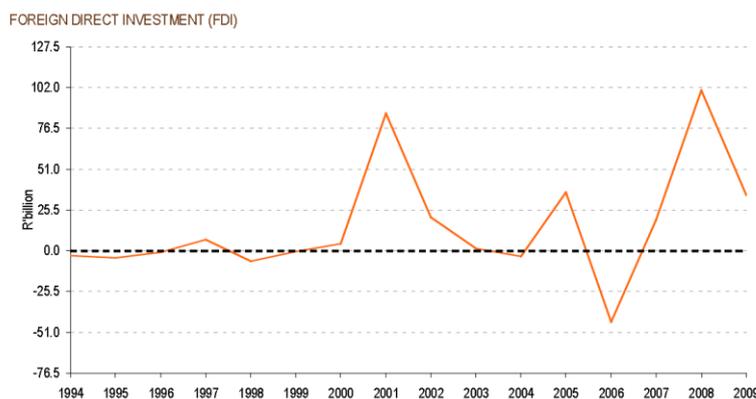
- incorporating a wholly owned subsidiary or company
- acquiring shares in an associated enterprise
- through a merger or an acquisition of an unrelated enterprise
- by participating in an equity joint venture with another investor or enterprise.

The graph below, illustrating South Africa's 15-year FDI in 2009, sketches a highly varied pattern of investment. The very large jumps in 2005 and 2007/2008, for instance, are due to British bank *Barclays* purchasing a 60 % stake in local bank *ABSA*, and China's Industrial and Commercial Bank of China buying a 20 % stake in South African Standard Bank, respectively.

According to Professor Stephen Gelb of the University of Johannesburg, FDI inflows into South Africa dropped by 70% in 2010 compared to 2009. South Africa received US\$1,553 billion in FDI in 2010 which was just 16% of its peak in 2008. It dropped to 69th in the world which can be compared to Chile in 19th place (US\$15 billion) and Indonesia at 20th place (US\$13 billion) as they are both also middle middle-income, resource-rich states (Roberts, 2011). South Africa also dropped from 4th (2009) to 10th place (2010) in terms of FDI inflows into Africa. Nationalisation was first mooted by ANCYL in July 2009.

Dramatic variations in FDI are witnessed in many smaller, emerging economies, even in the case of individual projects. It is an important qualification in assessing the project or country risk premium that inbound foreign investment in good projects located in risky countries is often protected by credit guarantee insurance. Risk mitigation is also covered by bilateral investment treaties, which ensure that market-related compensation is provided should assets owned by foreign companies be expropriated by the host government.

South Africa's inbound FDI 1994-2009



Source: National Development Indicators, NPC

Default in bilateral agreements are referred to international arbitration, as occurred in the case of Red Graniti and the South African government, after the country's Minerals and Petroleum Development Act forced a return of all privately held mineral rights to the state, without compensation. A settlement was reached in the Red Graniti case.

The next table shows net flows of direct investment capital by non-residents into the selected countries (as a percentage of GDP in the same year). These show mixed outcomes and, once again, although the sample is small, there is no empirical evidence to suggest that a collapse in FDI is inevitable after a nationalisation event. This said, a rapid policy of nationalisation may well frighten long-term investors.

According to Professor Stephen Gelb of the University of Johannesburg, FDI inflows into South Africa dropped by 70 % in 2010 compared with 2009. South Africa received US\$1,553 billion in FDI in 2010 which was just 16 % of its peak in 2008. It dropped to 69th in the world which should be compared to Chile in 19th place (\$15 billion) and Indonesia at 20th place (\$13-billion).

Net flows of direct investment capital by non-residents into the country, as a percentage of GDP

Country	BY-4	BY-3	BY-2	BY-1	BY	BY+1	BY+2	BY+3	BY+4	BY+5
Venezuela	0.8	2.4	1.3	1.8	-0.3	0.4	0.1	-1.0	-0.6	0.2
Australia	3.4	4.3	4.5	2.8	2.5	2.3				
Bolivia A	-0.5	0.6	1	1.7	2.2	2.2	5.8	6.4	9.2	11.2
Bolivia B	8.6	2.4	0.7	-2.5	2.5	2.8	3.1	2.5	3.2	2.8
Ecuador A	–	3.2	3.1	2.6	1.3	0.7	0.4	1.8		
Ecuador B			1.8	0.6	0.3	0.6				
Kazakhstan	6.8	9.6	3.5	7.8	10.8	10.6	12.4	7	7.4	
Russia	0.2	0.7	0.7	1.2	1.0	1.7	1.0	0.9	1.0	1.8

Source: EIU/IMF data

Portfolio investments

Historical data by the Economist Intelligence Unit (EIU describes how portfolio flows may be influenced by announcements of impending economic nationalism³⁰. The EIU “nets off foreign currency bonds from inflows as these are medium- and long-term debt. For inflows, netting off bonds leaves equity investment and foreign activity in the local currency bond markets” (Economist Intelligence Unit, 2011).

Inward portfolio investment (net of foreign currency bonds)

Country	BY-4	BY-3	BY-2	BY-1	BY	BY+1	BY+2	BY+3	BY+4	BY+5
Venezuela	0	-1	-3	-2	1	3	-3	0	4	-2
Australia B	22	-6	-8	81	20	27				
Ecuador A	0	0	0	0	-1	0	0	0		
Ecuador B			0	3	1	0				
Kazakhstan	-1	-2	-2	-2	-11	-2	3	16	13	
Russia	0	0	5	12	-5	-2	-12	-1	1	-7

Source: EIU/IMF

As in the sections above, there is no obvious trend in the data presented in the above table that portfolio investments may leave the country post a nationalisation announcement (Ecuador A), or even increase (Venezuela).

³⁰ Portfolio flows are expressed in absolute terms and quoted in US\$ billions



The South African case merits closer consideration. The companies that stand to lose most from resources nationalisation (the large mining houses) are all publically listed, and constitute 39 % of the total market capitalisation of the JSE (Laubser, 2011). Should a policy of outright and immediate expropriation be pursued, 40 % of the JSE could be nationalised without compensation. This would equally affect foreign and local shareholders. Should this happen, foreign investors would almost undoubtedly invoke various bilateral investment treaties. Domestic investors may lose their investments, which would trigger a constitutional crisis. Where large-scale short-term divestment by portfolio investors occurs, this typically prompts a market flight by domestic investors as well, triggering a cascading bear run. These rapid and large outflows of investment from the domestic market, combined with negative sentiment, which could spur speculative attacks, exerts downward pressure on the local currency. This could result in a significant depreciation in that currency and in turn increase inflationary pressures.

While the market would, in theory, eventually return to fundamental underlying values³¹, the presence of several other markets and instruments offering competing or superior growth and more transparency and stability (such as other BRICS partners) would imply a slow and difficult recovery for South Africa. Long term growth could be made slower still if there is human capital outflow following the capital flight.

The most obvious expression of financial outflows resulting from an announcement of resource nationalism would therefore be seen in Stock Exchange portfolio investments and primarily by financial institutions and speculative investors. These investors are typically relatively liquid, not tied to fixed capital outlays, and are often highly sensitive to media/sentiment. In the case of South African mining stocks, 44 % of portfolio investors are offshore (Laubser, 2011). Finally, volatility is often catalysed by market speculators who pre-empt policy changes and flee to safety ‘ahead of the curve’.

Possible effects of four types of nationalisation, if gradually introduced and *ceteris paribus*

	Large Rent Tax	Chile Model	50+1 % Govt buy @ large discount	100 % Expropriation
Ratings	Stable	Stable, as long as predictable	Stable, as long as predictable	Negative
Long Term Bond Yields	Slight rise	Stable, as long as predictable	Stable, as long as predictable	Negative
Inbound FDI	Stable, eventual sag	Possibly remain stable	Possibly remain stable	No immediate drop, clear downward trend over long term
Portfolio Investment	Stable	Stable	Possibly remain stable if by dilution, may drop sharply if shares directly transferred	Capital flight

³¹ This would not necessarily be the same as the previous value as investors have to take policy uncertainty into consideration, even over the long term

SECTION 2: CASE STUDY: THE SOUTH AFRICAN NATIONALISATION DEBATE

Chapter 9 The South Africa nationalisation debate in context

The ANC's 1994 elections manifesto, the Reconstruction and Development Programme (RDP), referred to "restructuring the public sector", which was "nationalisation, purchasing a shareholding in companies, establishing new public corporations or joint ventures with the private sector". However, the post-election white paper on the RDP (RSA, 1994) made no mention of nationalisation. While several instances of privatisation have occurred since 1994, it has been frequently stated by senior political leaders that nationalisation is "not ANC policy".

On 1 July 2009, the president of the ANC's Youth League, Julius Malema, called for the nationalisation of South Africa's mines, starting a series of rhetorically similar calls at political rallies, public forums and press briefings. The latest of these calls, made at the 'Economic Freedom March' in October 2011, came in the form of a memorandum of demands handed to the South African Chamber of Mines. The basis and motivation of the call (dealt with extensively elsewhere in this report) centres around South Africa's present income inequality (especially along colour-lines), high unemployment and an un-redressed apartheid legacy of white ownership and control of the means of production. The language also hints at the suggested solution: nationalisation would ensure that the benefits of the country's natural resources are "shared by all", as per the Congress of the People's Freedom Charter of 1955.

The calls for economic nationalism are also markedly wider than state control over mining-houses and cover "restoration" and nationalisation of the country's banks.

OBJECTIVES OF THE CASE STUDY

The principal objective of this section is to contribute to a multi-stakeholder debate on nationalisation. In addition to this, it is intended to:

- engender in the critical decision-making constituencies (both government and industry) an understanding of the policy (as opposed to political) issues facing the government in achieving its economic planning and developmental objectives and locate the mining sector within this context and examine international models for state involvement in the mining sector
- examine alternatives to nationalisation that will achieve the same policy and developmental objectives as state intervention
- provide a comparative analysis of the developmental state compared to other options.

The work recognises that the call for nationalisation goes beyond the political agenda of the ANC Youth League (ANCYL) and Malema and is indicative of a deep-seated frustration on the part of a large portion of the population who feel that the redistribution of wealth following the fall of apartheid has been skewed.

CONTEXT FOR THE STUDY

There is a general imperative towards indigenisation and resource nationalism throughout the emerging world and particularly in southern Africa. Countries such as Ghana and Zambia have been through nationalisation episodes that have not achieved their intended outcomes and it has taken decades to rebuild their respective mining industries. Zimbabwe has called for a rapid handover of 51 % of its more significant mining companies to Zimbabweans, despite the fact that it has seen its industry contract



dramatically over the last five years. Namibia has established a state-owned mining company, which will participate in all new projects and Botswana has a very successful model for state participation in the industry.

Seventeen years after political transition, the general sentiment among the broader South African populace is that insufficient has been done with respect to the equitable distribution of benefit from the mining industry to the country's people. Black empowerment in the industry has certainly taken place but its implementation has been ultimately cynical in an Orwellian sense of "same trough, different piggies". There is a general perception that the transformation of the mining industry has seen a shift of tremendous wealth from a few white families to equally few black families. These families comprise a relatively small group of black political elite, as opposed to broad-based redistribution of wealth, which was the original intention of the process. This has culminated in the nationalisation of mines being placed high on the agenda for the 2012 ANC policy conference.

The possibility of increased state intervention, if not necessarily nationalisation, is very real. The question is not whether a shift in the equitable distribution of benefit will take place, but how it will take place and the extent to which it will be sufficient to prevent a Zimbabwe-style melt-down.

A feature of this debate is that much of it is unqualified. This is extremely dangerous. While Julius Malema makes statements, with little cognisance of their possibly disastrous consequences, mine owners dismiss nationalisation out of hand and decline to enter into the debate in a meaningful way, which is equally dangerous. A coherent and ordered response on the issue from organised business has been notably absent.

This project is intended to provide a qualified basis for the debate that will address the kernel issues facing the call for the nationalisation of South Africa's mines. The intention is to crystallise out the key questions and solicit responses to these. The questions will be directed at a number of principal constituencies, which will influence the course, trajectory and outcome of the debates.

The responses to the questions will be synthesised into a memorandum for the multi-stakeholder dialogue.

Chapter 10 The political economy of the South African mining industry

HISTORICAL BACKGROUND TO THE CURRENT DEBATE

Milestones in the contribution of mining in the development of the modern South African political economy

- The discovery of copper in Namaqualand in 1847: the boundaries of the Cape Colony moved beyond the Buffalo river to include the new discoveries
- Diamonds in Hopetown 1867
- The development of Kimberley 1869: boundary and territorial disputes between the Free State Republic, Cape Colony and Griqua's resolved in favour of Griqua Chief, Andries Waterboer, who placed the area under British protection
- Railway infrastructure from the coast to Kimberley 1885: the opening up of the interior
- The accumulation of capital in Kimberley: the foundation stone of modern South African Capital
- Rhodes and the Glen Grey Act 1884: forcing labour to the mines
- Gold in Johannesburg 1886
- Pass laws initiated by the Chamber of Mines promulgated 1886: control of mine labour
- The extension of the railway line to Johannesburg 1890
- The Mines Act 1893: the first racially discriminatory labour practice

Both the best and the worst aspects of the modern South African political economy are founded on mining. While the first European commercial mining (copper) commenced in the Springbok area in 1847, the first stimulus for the development of a formal, diversified non-agrarian economy was the discovery of diamonds in the Northern Cape at Hopetown in 1867. The artisanal workings along the Orange River were ultimately superseded by the subsequent discovery of kimberlite pipes and the centre of gravity of the diamond industry was established in Kimberley.

The massive influx of people, equipment and stores to the diamond fields catalysed the development of a healthy transport sector from Cape Town to Kimberley. This was initially wagon-borne but was later replaced by railway lines from Cape Town and later Port Elizabeth.

Capital and skills flowed into the diamond fields and, with the discovery of gold in Johannesburg in 1886, spread from Kimberley to Johannesburg. Johannesburg is central to the Witwatersrand gold belt, which stretches 120 km from Carletonville in the west to Springs in the east. The Witwatersrand continues to rank as the world's biggest goldfield, albeit that production has declined since peaking in 1970.

Mining has played a seminal role in defining the country's economic and political direction over the past 150 years. Despite its downscaling since the 1994 elections, it continues to have centre stage in the impending 2012 elections.

Within months of the discovery of the goldfields, the Witwatersrand attracted fortune seekers from all over the world, but the core of the skilled miners and artisans and the capitalists was British. This created inevitable tensions between the British colonial authorities under Lord Milner and the Boer (white Afrikaans farmer) Zuid Afrikaansche Republiek under President Paul Kruger. Contest for the control of the gold mines triggered the Anglo-Boer-South African War of 1899-1902, and the British gained administrative control over both diamond and gold fields.



- Development of secondary and tertiary industry around the gold mining industry
- Establishment of the Native Recruiting Organisation (NRC) and Witwatersrand Native Labour Association (Wenela): demand side labour cartel
- Establishment of the first mining labour unions, 1897: protecting the British miners
- Suppressing the competitiveness of black labour: indentured Chinese labourers, 1897
- Breaking the leverage of the British mineworker: the rise of the Afrikaans mineworker
- The Boer War and the British scorched earth policy: the contingent establishment of the Afrikaans working class
- The development of post Boer War Afrikaans political power and the rise to power of the Nationalist party Post Second World War tension between Afrikaans political ascendancy and English economic power
- The compromise: the establishment of an Afrikaans stake in the mining sector
- Sankorp: the rise of Afrikaans capital and South Africa's first successful attempt at affirmative action
- The halcyon years of the deep level gold mining industry

After the Boer war, the country was unified in 1910 under the British Crown, ushering in a period in which the state, labour and capital battled for economic and political control. The battle between nationalism and capital endures to the present. The Botha-Smuts South African Party government led the country after Union, and demonstrated a pro-mining capital attitude.

The British victory over the Boers in 1902 had led to a new political dynamic. With the unification of the country, there were clear political divisions in the white polity between the British and the Afrikaans speaking sectors. The scorched earth policy of the British army during the Boer War had created major economic hardship among the Boer and black communities, which continued after the conclusion of the Boer War. Hundreds of distressed Boer families flocked to the mines in the aftermath of the war. Because of their historical agrarian occupation and lack of formal education and skills, the Boer gradually displaced the Welsh and Cornish miners and became the de facto white, but enfranchised, working class.

The English speaking community, due to capital accumulation and the original sourcing of the mining, engineering and ancillary professional skills, dominated the ranks of management.

Black labour in the mining industry was seen by English and Afrikaaner alike as purely for unskilled deployment and they played no part in the political dynamic of the time. To the contrary, from early Kimberley days, discriminatory labour laws (job reservation and pass laws) were introduced to protect white working class interests. This defined to a large extent the economic and social development of the black South African nation.

Following the Rand Revolt of 1922, white labour made common cause with Herzog's National Party to form the Pact Government, which came into power in 1924. The Pact Government continued the modernisation programme of the South African Party government, which, between 1910 and 1924, had laid the basis for the future 'Apartheid developmental state'. Key elements of that developmental state were the founding of South African Railways and Harbours (SAR&H) (1916) and the Electricity Supply Commission (Eskom) (1923). The Herzog administration in

- Sanctions and disinvestment: further concentration of the capital accumulation of the mining houses
- The rise of political activism in the 1970's: June the 16th
- Black trade unionism: Schlebusch and Wiehahn commissions
- Unbanning of unions and the rise of the National Union of Mineworkers and Cosatu during the 1980s
- Détente in the 1980s and the onset of political change
- The first black political aristocracy and the dominance of mining-related personalities
- Build-up to the 1994 elections: tri-partite negotiations around mining policy
- Government of National Unity: Botha, Hugo, the Chamber of Mines and pushback to transformation policy
- Anglo American gets proactive with JCI: Ramaphosa vs Khumalo and the Kebble disaster
- The passage of the MPRDA and the concord of the Mining Charter
- The emergence of Black Diamonds: mining empowerment and the cocktail circuit
- Community empowerment imperatives: successes and failures
- Dissatisfaction in the ranks: Malema and the nationalisation ticket

turn established the Iron and Steel Corporation (Iskor) (1928), and, in the wake of the Carnegie Commission, sought to address white poverty through public works programmes, such as the Vaal-Hartz Irrigation Scheme (1934).

The Second World War precipitated a deepening of the country's industrial base through the founding of the state-owned Industrial Development Corporation (IDC) (1940), intended to limit the power of the mining houses. This was accomplished on the back of cheap, marginalised black labour, which, even in wartime, was denied the bearing of arms. The conclusion of the war in 1944 saw the emergence of the militant ANCYL and the first skirmishes of the civil war to come.

The English-Afrikaans class divide and the high proportion of English-speaking ownership of mining capital, as well as their continued occupation of management on the mines, led directly to the defeat of the predominantly English speaking United Party, under Field Marshall Jan Smuts, in the post war elections of 1948. Dr DF Malan, with the critical support of the predominantly Afrikaans Mine Workers Union (MWU), took government and proceeded to entrench and enhance the discriminatory laws originally introduced on behalf of the mining industry. From this point, Apartheid was developed as a brutally enforced political ideology. The 'purified' Nationalists set about a rigorous codification of apartheid, complete with large-scale forced removals.

The Apartheid government focused on the creation of a quasi-developmental state, geared towards white development and concomitant cultural and economic supremacy, but directed more towards economic empowerment of the Afrikaans sector. The developmental state was broadened by founding the Atomic Energy Board (1948), synthetic fuels producer Sasol (1950), and the Armaments Production Board, forerunner of Armscor (1964). Basil Schonland, the local radar pioneer and scientific advisor to Field Marshal Montgomery, returned to head the new Council for Scientific and Industrial Research (CSIR).

The inequity between Afrikaans interests and English ownership and management of the principal means of production of the mines and associated secondary and tertiary sectors continued to fuel tension between the two groups until 1964. Anglo American, under Harry Oppenheimer, conceded to very favourable terms of sale of



the Anglo controlling stake in General Mining and Finance Limited, to a little known Afrikaans-owned Natal coal mining company, Federale Mynbou Beleggings, which had the financial backing of Sanlam. Sanlam, the largest base of Afrikaans capital, had emerged from the railway workers saving schemes, Spoorbond. In an extremely successful programme of Afrikaans economic empowerment, General Mining merged with Union Corporation to become Gencor, which in turn evolved into Sankorp, the country's largest diversified investment group and second only to Anglo American.

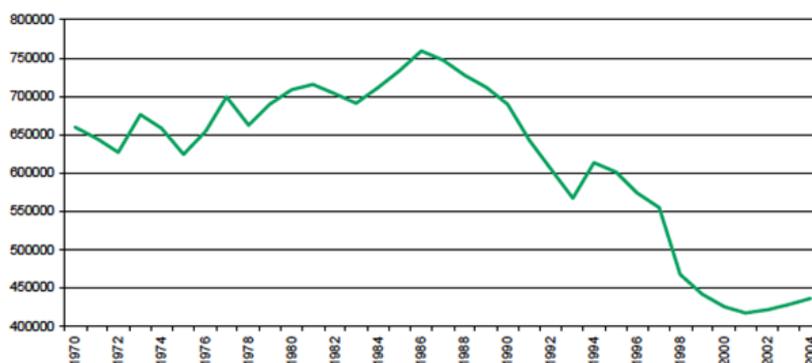
The declaration of the Republic of South Africa and subsequent 1961 state of emergency, coupled with rigid controls of outward capital flows, did little to cool the economy. It saw growth of up to 8 % with improved labour productivity on the gold mines, and the opening of new markets, especially in the east (Feinstein, 2005).

One such market was iron ore for Japan, which later saw Iscor commission the Saldanha-Sishen railway line which remains a significant technological achievement. The same year saw the commissioning of the Richards Bay port and coal terminal, still the single largest such terminal in the world. Among electricity utilities, Eskom was also among the world's largest networks and a pioneer in extreme high voltage transmission and lightning protection. Until 2008 when the Eskom management inadvisedly released a statement that the country was on the brink of a power crisis and could not support further economic development, the parastatal had supplied the cheapest electricity in the world to the mining and refining industries.

The ending of the gold standard in 1970 was followed by the 1973 rise of worker militancy, the oil crises of the 1970s, the collapse of the Portuguese colonies, the curtailment of migrant labour to the mines, the Iranian revolution, and the 1976 June 16th Soweto uprisings. The Apartheid developmental state, burdened with the cost of the Bantustans and runaway arms expenditure, began to shift direction. Faced with oil sanctions, the South African government decided to raise Sasol output tenfold, and to finance this through the Intellectual Property Offering (IPO) of 1979, thereby privatising the entity.

Gold production peaked in 1970, with refined output reaching 1 000 tonnes per annum. Employment on the mines grew to peak in the mid-1980s, since when it has declined by nearly one half, as new technologies and deeper mining have seen technology substitute labour.

Employment in mining, 1970 to 2004



Source: (Edwards, 2005)

The political economy of South African mining overlaps with the political economy of mining in the sub-equatorial region. Prior to the independence of the colonial dependencies, Anglo-American was active in mines in South-West Africa, Southern and Northern Rhodesia, and Tanganyika. Crucially, however, the diamonds of Botswana and Rhodesia lay undiscovered. By the mid-1980s, Anglo American interests spanned mining, banking, insurance and leisure, agribusiness, automobiles, and forestry, with controlling interests in more than 1 000 companies. Its market capitalisation stood at 60,1 % of the JSE in 1987, with most of the JSE companies under its control. The next largest controlling interest was that of Sanlam with 10,7 %, followed by SA Mutual at 8 % and Rembrandt with 4,3 % (McGregor, 2008).

The dominance of Anglo American, being a key shareholder of both JCI and Goldfields, played an important part in the subsequent political economy that developed over the next four decades. From the 1970s through to the 1980s, the large mining houses effectively controlled much of the formal South African economy. The early generation of capital in Kimberley had provided the funding for the development of the mines in Johannesburg, as well as the development of real estate³² and many of the secondary and tertiary sectors associated with the industry. This concentration of ownership was increased during the periods of disinvestment in 1970s and anti-Apartheid sanctions of the 1980s, which coincided with the height of the deep level gold mining boom.

The large amounts of cash generated by the gold mines, a business model 'fashion' of diversification, the availability of good companies being sold off by disinvesting multinational corporations and an increasingly difficult foreign investment arena from sanctions resulted in the mining houses acquiring significant controlling stakes in the food industry, tourism, media, beverages and manufacturing. At the onset of political change in the 1990s, the six major mining companies, viz Anglo American, Barlow-Rand, Anglo Vaal, JCI, Goldfields and Sankorp, owned a substantial stake of the formal economy of South Africa. Ownership over the wide range of economic sectors within South Africa enhanced the commonly held perception that ownership of the mines was the key to economic transformation. These popular opinions are still pervasive although these mining companies have to a large extent unbundled their non-mining assets, and many of the companies no longer exist as the companies that held those assets.

The rise of oligopoly had concerned government, which sought to limit excess through the 1955 Regulation of Monopolistic Conditions Act, amended and extended in 1979 as the Maintenance and Promotion of Competition Act, and again in 1986 to strengthen the Competition Board. Opposite to this intense concentration stood the Apartheid state with control over the utilities, iron and steel and transportation, and a vast military-industrial complex of state-owned arms factories (ARMSCOR, Atlas Aircraft Corporation and Atlantis Diesel Engines), including sites for nuclear, chemical and biological weapons development. Public investment stood at around 10 % of GDP.

Another expression of the emerging liberal polity was the 1979 decision to privatise Sasol. A year later, SAR&H was corporatised into South Africa Transport Services becoming state-owned Transnet in 1990. Eskom was also corporatised, and ISCOR was sold off in 1989. The 1992 Kasser Committee of Inquiry deregulated agriculture, and Armscor was largely absorbed into Denel (Pty) Ltd. The lean state had arrived.

The organic diversification of the South African economy around mining has led directly to Johannesburg being ranked as Africa's financial centre. It is the largest city in the world not positioned on a major river or

³² Johannesburg Consolidated Investments, JCI, started off as a property development company that owned much of what was then downtown Johannesburg and the suburbs north of the town.



seacoast, and is testament to the long-term survival of the mining sector through conflicts of capital, government and labour.

Mining, despite its decline as a component of GDP, remains central to the present economy. What Fine and Rustomjee (1996) term the “minerals-energy complex” extends across manufacturing and services. Minerals are still the major component of exports although gold production has fallen dramatically by more than 75 % to the present level of 225 tonnes, but platinum, coal and iron have grown in importance.

The SIMS Summary was leaked to the press during the first week of February 2012. The overriding conclusion was that nationalisation without compensation would be an unmitigated economic disaster. The study instead proposes that the state investigate increased rents, growth and development as the way to achieve the State’s objectives (SIMS, 2012).

With the decline in the mining industry, the broader South African economy continues to face many challenges, not least is the deepening crisis of unemployment. Along with other negative features, such as the perception of endemic corruption, the country is vulnerable to populist agendas.

In November 2010, the black, community-controlled Royal Bafokeng Holdings prelisting statement for the JSE said “a faction of the ruling political party in South Africa, the youth league of the African National Congress, has recently called for the nationalisation of all mines in South Africa. The government of South Africa has publicly stated, in response to these calls, that there is no present intention to consider nationalisation or to change the existing government policy on this issue in the short, medium or long term”. Since then, government officials and senior politicians became more mooted on the prospect of nationalisation and business has become more vocal, if guarded, on what it sees as the inevitably negative consequences of state intervention in the industry.

Throughout 2011, the South African government failed to reassure investors of the unlikelihood of increased state intervention in the mining sector. Of most serious concern was that, despite senior ANC ministerial utterances on nationalisation not being the government’s *current* policy, the ANCYL continued its nationalisation campaign. It claims to have “made public many case studies of countries that have greatly succeeded with nationalisation across the world’. Since that time, the ANC has commissioned the State Intervention in the Minerals Sector (SIMS), which sets out to examine international models of various forms of State Participation in Mining. It was published in early February 2012.

In December 2010, an emerging markets economist³³ maintained that he had spoken to “people in the ANC” and had gained the impression that the mainstream ANC was opposed to nationalisation. However, the party would need to look at alternatives to outright nationalisation, such as mineral beneficiation and enforcing transformation through the mining charter. The push for greater levels of mineral beneficiation is already high on the economic development agenda and government is considering imposing taxes on unbeneficiated mineral exports.

Conclusion

In conclusion, since the onset of commercial mining at scale in South Africa, successive governments have used the mining industry to promote their political agendas and secular interests. The current ANC

³³ Mr Attard Montalto

government is no different. Given the history of mining and its linkages with discriminatory legislation, exploitative practices and close association with wealth and political power, it is unsurprising that mining remains on the political agenda, despite the contraction of its economic contribution to the country.

Unfortunately political leverage goes hand-in-hand with political patrimony and corruption. These are not new issues in South Africa as Cecil John Rhodes used his political power to introduce legislation such as the Glen Grey Act of 1894, a land tax on rural communities designed to force male black labour to the mines. Legislation around job reservation and influx control were at the behest of the Randlords, as was the declaration of war against the Boer republics. The Nationalist government used the mining industry as its vehicle for economic empowerment from the 1960s onwards, while the ANC government used it as a pioneer for black economic empowerment after 1994. The Minerals and Petroleum Development Act of 2001 was the first mining legislation globally to specify broad ranging and detailed economic empowerment and social development of 'indigenous' people as a pre-requisite for doing business. No other sector in South Africa is yet subject to the same socio-economic and equity requirements.

The genesis of the nationalisation debate in South Africa is entirely a function of the close relationship between mining and the political economy of the country. Its outcome has the potential to define the political economy of the country, as well as that of the sub-region for decades to come.



Chapter 11 The political dimensions of the debate

A wide range of factors that have been historically associated with the resource nationalism issue are still prevalent in South Africa, and it is unsurprising that the current political environment is conducive to demands for nationalisation of the mines. There are also, however, two more explanations for the emergence of mine nationalisation on the policy agenda of the ANC. First, it is the product of factional contestation within the liberation movement. The purported mine nationalisation policy advanced by the ANCYL could undercut the legitimacy of the South African Communist Party (SACP), and exploit internal and generational divisions within the party over economic policy. The choice of the mining sector for this initiative also exacerbates tensions within the Congress of South African Trade Unions (Cosatu) and the National Union of Mineworkers (NUM), organisations that are at the core of the leftist faction of the ANC.

Second, the nationalisation proposal could persuade ANC leaders and wider social interests into accepting proposals that will probably include a state-owned mining company, a resource rent tax, and a more rigorous black economic empowerment programme. A wider reconfiguration of public sector asset governance may also be desired.

A number of statements and resolutions support these calls.

The Freedom Charter of 1955 and its relevance to mining

As a result of the Apartheid practices of the previous South African dispensation, the society was polarised.

The ANC and its partners gathered in Kliptown in 1955 and concluded the Freedom Charter, which contains a number of basic human rights that should be applicable in South Africa.

The Freedom Charter must be interpreted in the context of when it was written, and who wrote it. In its simplest form, it can be considered a protest against the injustices of the Apartheid system and the ideology that governed it. The writers constituted lawyers, theologians, teachers, veterans of World War 2, communists, liberals, nationalists and tribal chiefs. The Freedom Charter was essentially the product of a non-racial assembly seeking to put an end to a discriminatory white-led system of government.

The semantics of the charter are important. The relevant clauses are that:

- the national wealth of our country, the heritage of all South Africans, shall be restored to the people
- the mineral wealth beneath the soil, the banks and monopoly industry shall be transferred to the ownership of the people as a whole
- all other industry and trade shall be controlled to assist the well-being of the people.

The key phrases for this analysis are “the people shall share in the country’s wealth” and “the mineral wealth beneath the soil... shall be transferred to the people as a whole”. While this definition is extremely wide, it did remain a central tenet of ANC policy right up to the unbanning of the ANC and the release of Nelson Mandela on 11 February, 1990. On release from prison, Mandela stated “The nationalisation of the mines, banks and monopoly industries is the policy of the ANC, and a change or modification of our views in this regard is inconceivable. Black economic empowerment is a goal we fully support and encourage...”. Shortly thereafter, in 1992, Mandela moved away from this position citing the hostility he received from the international investment community to the concept.

Considering the definition of nationalisation, as given earlier, it appears that the wording of the above clause in the Freedom Charter does not encourage nationalisation, but seeks to ensure an equitable distribution of the wealth of the country to all its citizenry. Also, the Freedom Charter was concluded in 1955 and, even if the intention had been at that time to nationalise the South African economy, it no longer be appropriate to take this document at face value in contemporary South Africa, taking the current economic climate in South Africa and the world into account.

After the 1994 elections, the Green and White Papers were released on a new mining policy for South Africa. The Mineral and Petroleum Resources Development Act (MRPDA) was promulgated in 2002 and set in place a number of provisions that would require mining companies to initiate the policy objectives of the ruling party and speak to the spirit and intent of the Freedom Charter.

Most mineral-endowed countries have the state as the owner of their mineral rights. In line with international practice, the MPRDA prescribed the return of mineral rights to the state. Former private owners could continue to have beneficial access to their previous rights, provided that they complied with a wide range of restitution and socio-economic measures. Irrespective of the effectiveness of these measures in achieving their respective objectives, the total ownership of the mineral rights has been returned to the nation under the custodianship of the state. It is therefore reasonable to say that this clause of the Freedom Charter has been fulfilled.

While it can be argued that the restoration of national mineral wealth to the people and the transfer of ownership have been achieved through the MPRDA, control of all other industry and trade is a moot point under the industrialisation agenda of the various economic development planning frameworks. Such control would be in direct contravention of the constitution and, in the case of foreign shareholders of these companies, the relevant bilateral agreements and the basic tenets of the Competition Commission, which governs the establishment of monopolies.

Mine nationalisation and ANC factionalism

Nationalisation only reappeared on the political agenda of the ANC in the second half of 2009. The Polokwane resolutions of December 2007 were moderate and socially democratic, focusing on “decent work”, social equality, rising productivity, cutting edge technology, labour-absorbing growth, competitive markets and efficient management. The left advanced mostly modest demands: a progressive realisation of socio-economic rights, fair labour practices, social security for the poor, universal access to basic services and ongoing programmes to defeat poverty.

The conference endorsed “a mixed economy, where the state, private capital, cooperative and other forms of social ownership complement each other”. It accepted that “the changes we seek will not emerge spontaneously from the 'invisible hand' of the market ... the state must play a central and strategic role, by directly investing in underdeveloped areas and directing private sector investment.”

However, a “developmental state”, purportedly able to “lead in the definition of a common national agenda, mobilise society to take part in the implementation of that agenda and direct resources towards realising these objectives”, had displaced demands for public ownership. The developmental state will be “located at the centre of a mixed economy” and “lead and guide that economy ... in the interest of the people as a whole” (ANC, 2007). There was to be “an institutional centre for government-wide economic



planning”, responsible for “integration, harmonisation and alignment of planning and implementation across all three spheres of government”. The developmental state was to have greater human and technical capacity and to maintain its strategic role of “shaping the key sectors of the economy”, including “the mineral and energy complex and the national transport and logistics system”.

Polokwane paid conventional respect to the Freedom Charter’s “vision of the economic transformation”, and resolved to take as its starting point “the Freedom Charter's call that the People Shall Share in the Country's Wealth!” Notwithstanding this almost reflexive commitment, there was not a single reference to nationalisation or socialisation in the Polokwane resolutions.

THE POSITION OF THE SOUTH AFRICAN COMMUNIST PARTY (SACP) IN THE DEBATE

The SACP’s Road to South African Freedom, under the section ‘Economic Development’, states “the Party will press for the strengthening of the state sector of the economy, particularly in the fields of heavy industry, machine tool, building and fuel production. It will seek to place control of the vital sectors of the economy in the hands of the national democratic state to correct historic injustices, by demanding the nationalisation of mining industry, banking and monopoly industrial establishments, thus also laying the foundation for the advance to socialism”.

The SACP’s complex relationship to nationalisation results from its history as a non-racial and organisational vehicle. It allowed white and Indian activists to help lead the anti-apartheid struggle at a time when the ANC leadership positions were reserved for Africans. It also helped racial minorities to participate on equal terms in the “military struggle” against the Apartheid regime.

The SACP was an organisational vehicle because only the “most advanced cadres” were recruited. Membership was a mark of prestige, a guarantee of advancement, and the key to accessing resources for travel and military training. By the middle of the 1980s, the overwhelming majority of senior exile ANC leaders were members.

The SACP lived a curious dual existence. Its members were the “best and the brightest” and they had unrivalled opportunities to observe first-hand the demerits of central planning. These cadres were therefore imbued with deep pessimism about the prospects of a socialist economy. The party had succeeded in getting the ANC to adopt quasi-communist positions on almost every aspect of the struggle, however, the ANC was more unquestioningly “socialist” than the SACP itself.

The SACP leaders antipathy towards nationalisation was evident in 1990 as exiles began their return to South Africa. In July of that year, soon after his return to South Africa, then SACP general secretary Joe Slovo (1990) told a radio audience that “We do not believe that the transfer of ownership from a board of directors to a board of bureaucrats will solve our economic problem”. Essop Pahad, already an important interlocutor between the party and the nationalist centre of the ANC, observed that “the extent of [state] intervention must be determined by a whole lot of factors of which we are not even in control”. Jeremy Cronin (1991) noted that “if you take away from Anglo American a whole lot of the economy, and then give it over to a bunch of bureaucrats, workers have not been empowered, bureaucrats have”.

Meanwhile, ordinary SACP members were more likely than the party’s leadership to view nationalisation as a real, if long range, policy objective. When the party vastly expanded its once select membership after 2002, a growing proportion of its active base no longer understood its nationalisation -but-not-now

agenda. A growing body of opinion believed that a communist party must be committed to some form of public ownership.

The Young Communist League (YCL)

General Secretary Blade Nzimande called the re-establishment of the YCL “an historic event” that ended the underground era that started in 1950 with the Suppression of Communism Act. In truth, the SACP leadership failed to plan how to induct a new mass membership into the convoluted intellectual life of the old party.

As the SACP and YCL became mass organisations in the mid-2000s, their leaderships underwent a decline in capability. The early 1990s collapse of the Soviet Union had long since precipitated the flight of strategists such as Thabo Mbeki and Jacob Zuma. In 2007, the residual SACP became sharply divided by the factional contest between Mbeki and Zuma. The SACP’s national conference culminated in the ejection of most of the party’s senior government ministers and officials, and in a corresponding loss of political and intellectual capital.

The SACP’s rise into a mass movement coincided with the erosion of its real capacity to formulate practical policy alternatives. While ordinary members believed that the party was socialist in orientation, and that must include a commitment to public ownership, the leadership was reconciled to the long range character of the communist project, and to its own limited role as a corrective influence or guiding hand behind the evolution of the wider ANC.

The result, by the time of the divisive 12th National Congress of the SACP in July 2007, was confusion. The congress resolved to support “state-led industrial policy”, “labour-intensive manufacturing” and other social democratic palliatives. Meanwhile, resolutions were also adopted (SACP, 2007) demanding the nationalisation of “strategic” companies such Sasol and Mittal Steel South Africa, with the “ultimate objective of nationalizing and socializing the commanding heights of the economy in line with the vision of the Freedom Charter”. (The word, “ultimate”, indicates that the party leadership probably had no real intention whatsoever of realising this commitment.)

In the post-Polokwane SACP, however, a vastly expanded membership was asking with some urgency what actions the left should propose for Zuma’s administration. Nationalisation emerged as the preference of the party’s youth wing.

LABOUR’S POSITION ON NATIONALISATION

The SACP’s partner in the tripartite alliance, Cosatu, played little initial role in debates over nationalisation. The Cosatu 10th national congress did, however, observe that “only a centrally planned socialist economy can deliver the workers and the marginalised poor from ... the present day economic [and] social culture of slavery and misery”. Such expressions of emotion were not supported by any systematic analysis of potential mechanisms of, or pathways towards, nationalisation or central planning.

Cosatu is undergoing a significant structural change. Cosatu has historically been dominated by mineworker, industrial, chemical and textile worker unions. Key leaders of the tripartite alliance, including Kgalema Motlanthe, Gwede Mantashe and Zwelinzima Vavi, began their political careers in NUM. In recent years, however, public sector unions representing teachers, health workers and local government



employees have achieved parity of numbers with their industrial union counterparts. For this reason, the Cosatu response must be viewed differently from that of NUM.

NUM's proposals on state intervention in the mining sector

NUM has suffered internal tensions after two decades of fitful progress for ordinary mineworkers. The union has taken a conservative position on economic policy in recent years, calling for education and skills training, an integrated approach to growth and economic summits with social partners. NUM conferences have scarcely deliberated nationalisation and the leadership has steered conference delegates towards demands for “meaningful government participation” in the economic life of the country (NUM, 2006).

NUM public support for calls for nationalisation has been on the basis that the debate should focus on attaining the country's developmental needs. In particular, the union believes that the debate should centre around concrete objectives for greater benefit to all citizens, and the policy shifts necessary to support the New Growth Path. “Nationalisation should be interventions to attain objectives,” said Madola Sambatha, NUM's parliamentary officer, on 18 August 2011 (Janse van Vuuren, 2011).

An important caveat is that, while NUM has vacillated in its position on nationalisation, it is generally in favour of a strategic equity or a developmental state model rather than full scale nationalisation. The union supports the formation of a state-owned mining company under which all the state's mining interests would be consolidated.

On 1 August 2011, NUM issued a formal submission to the ANC State Intervention in the Minerals Sector (SIMS) team on the union's perspective on the nationalisation of mines, the state mining company and beneficiation (NUM, August 2011).

The union's Central Committee (CC) supports the Freedom Charter clause on nationalisation insofar as the country's mineral resources should be exploited for the benefit of citizens, and the ANC 2010 National General Council (NGC) resolution on nationalisation. These were as follows.

1. Acknowledge, greater consensus on nationalization of mines and other strategic sectors of the economy
2. Urged government to expedite the establishment of the state mining company to consolidate all assets of the state in the mining. The mining company should be given a mandate to consider various forms of ownership including partnerships with the private sector
3. Called on government to develop a mining sector strategy within 12 months
4. Require consequential amendments to the MPRDA
5. The NGC therefore mandated the NEC to ensure that further work be done, including research, study tours and discussions, and to report to the Policy Conference for a decision at the National Conference in 2012. (NUM, 2011)

NUM publicly supports the Namibian strategic equity models:

- 49 % private mining investors
- 31 % state shares
- 10 % community or traditional authority shares
- 10 % mineworkers shares through Employee Share Ownership Planning Schemes (ESOPS).

In formulating a new policy framework for the sector, NUM reiterates that its position remains in line with the ANC's "Ready to Govern" manifesto of 1992. This moots a new system of mining taxation, the financing of mining projects, amendments to the mineral rights regime and the leasing of mineral deposits. It also addresses living and working conditions, public ownership of mining enterprises and joint ventures with the private sector. It emphasises the need to integrate mining activity with other economic sectors by encouraging beneficiation. Over and above the principles espoused in the Ready to Govern document and the question of nationalisation, the union makes the following policy points with respect to the sector and holds that government intervention take the form of:

- strengthening the Mining Charter by incorporating it into the MPRDA and ensuring that the Social and Labour Plan process includes a mandatory negotiation process with organised labour and communities
- introducing a windfall tax on mining profits
- passing legislation to define the approach to and ownership of traditional authority shares or community shares. This includes the process of how the funds accrued are managed and utilised
- forming a Tripartite Development Agency through a merger of the Teba Development Agency and the Mining Development Agency under the responsibility of the Department of Mineral Resources (DMR)
- mandating minimum wages by the Department of Labour and banning labour brokers.

On the question of a state-owned mining company, NUM favours a similar model to that of Chilean company Codelco, used as a case study in this document. It believes that this company should be established through an Act of Parliament and be accountable to parliament through the Mineral Resources Portfolio Committee and the DMR, as opposed to the Department of Public Enterprises. The union also suggests that other state-owned mining companies such as Alexkor³⁴, Foskor³⁵, African Exploration Mining and Finance Corporation (AEMFC)³⁶ and Limdev³⁷ should be incorporated into this company. NUM goes further in suggesting that Eskom and the Nuclear Energy Council of South Africa (NECSA) would also fall under this umbrella, as would the mining investment holdings of the Industrial Development Corporation (IDC), the Public Investment Corporation (PIC) and the Development Bank of Southern Africa (DBSA).

The union believes that the strategic focus of the state-owned mining company should be on the control of minerals that are directly strategic to the country's economic development.

While working within the New Growth Path and National Development Plan frameworks, the union believes that a state-owned mining company should specifically focus on:

- consolidating all state-owned mining interests
- increasing state revenues from the sector through economic rents
- using these revenues for social development
- advancing the cause of broad-based economic empowerment
- enhancing job creation and community projects for poverty alleviation
- investing in beneficiation and mineral based industrialisation and ensuring competitiveness for downstream value addition and manufacturing
- investing in exploration and mining knowledge.

³⁴ A state-owned diamond mine on the West coast of South Africa

³⁵ A phosphate mine in the Limpopo province

³⁶ The current state-owned mining investment vehicle with a loss-making coal mine in the Mpumalanga province

³⁷ The Limpopo Economic Development Enterprise



With respect to the disbursement of revenues generated by the company, the union proposes that:

- 40 % be reinvested in the company
- 20 % be used for health care
- 20 % be contributed towards fee education
- 20 % be invested in a rural development fund.

In NUM's opinion, the state-owned mining company should have a board of directors comprising representatives from government, parastatals, independent experts, organised labour and business. It believes that the board should report to the DMR.

NUM also makes proposals for the restructuring of the mining licences regime. It suggests that the function should fall under the Department of Trade and Industry (DTI) or as a separate unit within the Council for Geosciences, which should also monitor performance commitments on all exploration licences.

Interestingly, on the question of Black Economic Empowerment (BEE), NUM recommends that the state be the ultimate vehicle for black empowerment and that all state holdings, excluding the PIC, be considered as being BEE partners for Mining Charter and MPRDA compliance.

On beneficiation, NUM proposes that, while a windfall tax should be ring-fenced for developing other forms of economic activity, such as agriculture in depressed rural areas, all resource concessions granted by government should incorporate contractual commitments for mining-related infrastructure to deliver higher socio-economic impact than currently catered for in the MPRDA and Freedom Charter. As mining infrastructure generally relies on state assets for servitudes or licences, this broader utilisation of mining infrastructure could be a pre-requisite for the commissioning of these utilities and granting of servitudes.

NUM appears to recognise the economic, logistic and infrastructure constraints of a beneficiation programme in South Africa and propose that government provides incentives for downstream beneficiation to make this industry globally competitive.

The union is particularly concerned about capital flight from the industry through disinvestment and the listing of South African companies on foreign stock exchanges. On the question of upstream value-addition, NUM suggests that local procurement milestones be built into mining licence contracts, incorporating Broad-based Black Economic Empowerment (BBBEE) purchasing on local *value add* rather than absolute procurement value, citing Norway and Chile as examples. The document concludes on the need for the sector to be more knowledge intensive with respect to human resource development (HRD) and research and development (R&D). NUM comments that, since the Chamber of Mines transferred its (mining company-funded) mining technology R&D unit to the CSIR, its capacity has been reduced to a shadow of what it had been under private sector management.

The Cosatu position on state intervention in the mining industry

Cosatu has been less clear than NUM on its position with regard to the key elements of the debate on state intervention in the mining sector. At a news conference on 25 August 2011, the organisation stated that there was no difference between NUM's views on nationalisation and that of Cosatu. In line with NUM's stance, Cosatu places emphasis on the role of a state-owned mining company and beneficiation and

believes that that the debate should focus on policy that would support the ANC-led government's New Growth Path.

In a clear reference to the ANCYL nationalisation campaign leading up to the 2009 general elections, senior Cosatu officials have criticised the use of the nationalisation debate for political brinkmanship in the tripartite alliance between the ANC, the SACP and Cosatu. They have also publicly rebuked Cosatu leaders who had been voicing radical views on nationalisation (de Lange, 2011). Senior Cosatu leaders, including economist Chris Malekane, warned business in early August 2011 that the only outstanding issue about nationalisation in South Africa was how the policy would be implemented. Malekane also stated that the nationalisation process should not be restricted to the mining sector but should be extended to agriculture, the banks and "general production"³⁸.

Cosatu general secretary Zwelinzima Vavi followed up these comments by stating in September 2011 that "...in relation to the area of mining... we are not necessarily calling for nationalisation of all the mines in South Africa. We don't think that's a realistic proposal. But we do say that we need a state that can have a company that can intervene in the (management of) strategic minerals". Vavi said the steel and platinum industries should be considered for state intervention. Cosatu's caveat is that state intervention has to be strategic and should not be directed towards complete state ownership (SAPA, 2011).

TRIPARTITE ALLIANCE DIVISIONS, FACTIONALISM AND POLITICAL VULNERABILITY ON THE ISSUE OF NATIONALISATION

A simplified model of ANC factional conflicts explains the vulnerability of the left to a symbolic demand for mine nationalisation. ANC internal politics are fluid and multi-dimensional, and unstable alliances between regions and provinces play a key role in list-creating, leadership and policy processes. Nevertheless, there are three relatively coherent national level factions currently in play. The first, which can be called the organised left, includes the broad leaderships of the SACP and Cosatu. The second, which can be labelled the Kwa Zulu-Natal (KZN) group, is organised around the ANC and its tripartite alliance partners in that province. The third, the faction of the entrepreneurs, is centred in Gauteng but has national reach facilitated by the ANCYL among other agencies.

The call for mine nationalisation has exposed the inconsistency of the respective tri-partite strategists' thinking on key economic principles and has opened up divisions between leaders and ordinary activists. SACP deputy general secretary Jeremy Cronin presented the party's response to the call in two articles published in Party journal *Umsebenzi* in November 2009. It would appear that his interventions were sanctioned at the senior most levels of the ANC leadership. The first article, 'Should we nationalise the mines?' questioned the motives of ANCYL president Julius Malema. This personalisation resulted in the rapid racialisation of the debate and the characterisation of Cronin as a "white messiah".

Cronin responded by pointing out that nationalisation was a product of the consciousness of the mid-1950s: "The framers of the Freedom Charter," he insisted, "were almost certainly thinking of some kind of nationalisation as a MEANS to ensuring ownership by 'the people as a whole'". Cronin, like Slovo before him, was not in favour of "a narrow bureaucratic take-over by the state apparatus and a ruling party's employees, and explained that "this is why the SACP also prefers in general to refer to 'socialisation' rather than 'nationalisation'. The SACP's longstanding efforts to distinguish nationalisation (ownership transfer

³⁸ Subsequent to this statement, Malekane has been quoted as saying that the country needed a "mixed economy" with private and state-owned entities.



and bureaucratisation) from socialisation (democratic popular control), however, have made almost no impact on the movement's policy debate.

Cronin ventured that “an analysis of the systemic realities that are reproducing under-development in our country must surely lead us to call for greater use of renewable energy sources, for the phasing out of aluminium smelters, and for the re-nationalisation of SASOL.” He claimed that “it is not clear how the extensive nationalisation of the mines would contribute at this point to the transformation of our perverted accumulation path ... If the state actually owned extensive coal mining interests, for instance, we might be tempted to avoid looking at renewable energy sources in the name of keeping some ailing state-owned Coalkom profitable for the share-holder” (Cronin J. , 2009).

The SACP deputy general secretary observed that “nationalising mining houses in the current global and national recession might have the unintended consequence of simply baling [sic] out indebted private capital, especially BEE mining interests”. Nationalisation would “land the state with the burden of managing down many mining sectors in decline [and] burden the state with the responsibility for dealing with the massive (and historically ignored) cost of ‘externalities’.

Cronin's second intervention was deeply defensive: “None of this means that we should simply rule out the question of nationalising the mines ... the SACP has never ruled this out. But it does mean that you don't necessarily need to nationalise mining operations to achieve major immediate transformational objectives.” Nationalisation “runs the danger of wittingly or unwittingly serving the interests of monopoly capital in SA and its comprador and parasitic allies” (Cronin J. , 2009).

The ANCYL's framework document “remains vague when it comes to the actual detail of what mines should be nationalised”, does not explain “how they should be nationalised”, and does not address whether nationalisation is the most “strategic and sustainable” use of public resources.

Malema's sponsors had succeeded in opening up deep cracks between the SACP and the YCL in which it had placed its hopes for the future. The YCL has openly stated its support for the nationalisation of mines (ANCYL, 2010). “There has never been ambiguity in this regard. We have always called for not only the nationalisation of mines, but also that of steel, SASOL, and the key sectors of our economy. We will continue to work with the ANC Youth League in this regard ... We believe that progressive nationalisation should ultimately lead towards the socialisation of the commanding heights of the economy.”

Similar divisions emerged between Cosatu House and some of its provincial executives. Cosatu's Gauteng structures voiced their support for the ANCYL's nationalisation project in early 2011. National executive and central committee meetings of Cosatu and the SACP have found themselves unable to formulate a unified and coherent response to the ANCYL proposals.

An analysis of the ANC Youth League (ANCYL) proposals

The ANCYL (2010:) declared in its February 2010 position paper or framework document on the nationalisation of mines (ANCYL, 2010) that “NATIONALISATION OF MINES means the democratic government's ownership and control of Mining activities, including exploration, extraction, production, processing, trading and beneficiation of Mineral Resources in South Africa. Minerals Resources refer to all the more than 50 non-renewable precious, industrial and chemical stones extracted from Mines in South Africa. This includes but not limited to Gold, Platinum Group Metals, Chrome, Coal, Manganese, Diamond, Copper, Metals, Aluminium, etc.”

This statement is a very broad conception of what is to be nationalised, extending as it does along the value chain, and even including minerals that South Africa processes but does not mine, such as aluminium. The document then goes on to explain that “having nationalised key parts of the economy does not automatically mean that indeed the entire wealth is in the hands of the people and that the people will benefit from such wealth.” This is followed with the declared intent that the ANC should “(democratise) the commanding heights of the economy, to ensure they are not just only legally owned by the state, but thoroughly democratised and controlled by the people – their workplaces, their management, and decision-making process. The role of the revolutionary trade union movement and progressive professionals is critical in this regard.” Clause 8 argues for seizure of the ‘corporatist’ state-owned enterprises, while clause 9 seeks a limit on exports and a return to absolute power. The document oscillates between being pro and anti capital as it struggles to identify who its intended audience might be.

These limitations aside, the document has had its effect. The country has had to take note of nationalisation as a possible means to address poverty. And other damage is done: the Moody’s downgrade is the signal that investors are taking note of the ANCYL as a ‘disruptive technology.’

The ANCYL’s sponsors are also evidently interested in a new and powerful state mining company. This objective is stated very clearly in the February 2010 position paper.

“In no preferential sequence”, it suggests, “the ANC government should, a) establish a State Mining Company; b) put in place a democratic, open and clearly defined expropriation (with and without compensation) model; and c) amend the Minerals and Petroleum Resources Development Act to allow greater State participation in the exploration, extraction, production, processing, trading and beneficiation of Mineral Resources in South Africa”.

The ANCYL paper discusses Section 25 of the constitution (the “property clause”) at some length. It concludes that “the ANC’s interpretation of the section 25 of the Constitution should not be narrowly legalistic, and in the process falling [sic] into the scope of counter-transformation and reactionary Constitutionalists, whose interests is [sic] to solidify the imbalances and inequalities of the past ... Concretely, the ANC should utilise its capacity to lead society, parliament and government to re-introduce the Expropriation Bill in Parliament, which clearly spell out how the State should expropriate mines and other property in the public interest without or with compensation, depending on the balance of probabilities”.

The incoherence of this analysis suggests that option (b), democratic expropriation “with or without compensation”, is not seriously being pursued by the sponsors of the ANCYL document.

Option (a), the creation of a state-owned mining company, has been on the cards for many years now. The ANCYL paper proposes establishing such a company, and housing within it current publicly owned assets such as Alexkor, the state diamond trader, provincial agencies with mining interests, and the state’s shareholdings in Sasol. “This perspective,” the paper continues, “is fully aware of the existence of the State-owned African Exploration Mining & Finance Corporation (AEMFC). The functions and mandate of the AEMFC [primarily a coal miner] should be consistent with the principle established here [and] be integrated into the State Owned Mining Company whose responsibilities are outlined above.”

According to the ANCYL, the new state entity would “own and control” South Africa’s mineral resources, maximise national economic gains, contribute to national development, and develop and maintain strong



environmental and safety standards. The company will develop mineral resources “in a careful and deliberate manner”, and it “will not be run like a private business corporation whose extent of progress is solely measured through the amount of profit generated”.

Option (c) is to “amend the Minerals and Petroleum Resources Development Act”. This act has compelled companies applying for mining rights to have 26 % ownership and control by historically disadvantaged South Africans. The ANCYL framework document proposes that this should be amended to a requirement for a “partnership with the state owned mining company, wherein the state owns not less than 60 % of the shares and right of determination. The amended act should apply to new mining licences and all those who seek to renew their licenses.” The proposal suggests that the state miner would act, in effect, as a BEE partner.

The ANCYL’s mine nationalisation proposals appear to be primarily symbolic. They have been motivated by ANC factional politics and by the desire of various interests within and outside the ANC to secure “compromise” alternatives such as corporate welfare, an expanded DMR empire, and the tapping public of sector assets for “developmental” and other purposes.

What, though, will become of the substantive policy decisions to be taken around nationalisation before the end of 2012? At its September 2010 National General Council (NGC) in Durban, the ANC decided to investigate the ownership of mineral resources and to defer a “final” decision to the Mangaung conference of the movement scheduled for December 2012.

THE POLITICAL PROCESS

Responsibility for overseeing research around nationalisation was delegated to the ANC’s National Executive Committee (NEC) by the NGC in 2010. The NEC is the ANC’s sovereign decision-making body between conferences. The NEC delegated responsibility for research and analysis to the Economic Transformation Committee (ETC), a subcommittee of the NEC. The ETC is one of the most stable and influential deliberative bodies within the movement playing a central role in both entrenching conservative fiscal policy and in the development of BEE policy.

The committee is now chaired by Enoch Godongwana, Deputy Minister of Economic Development, and its membership includes planning minister Trevor Manuel, and former chair and parliamentary speaker Max Sisulu. The steering committee created to oversee the activities of the research team and to formulate an analytical response for the NEC comprises only the members of the ETC (and not, as the ANCYL proposed, representatives from other committees and alliance partner bodies). It is likely that ANC secretary general Gwede Mantashe is also involved in its deliberations.

The ETC commissioned the proposed SIMS report which submitted to the NEC meeting held from 2 to 5 February 2012. The purpose of the meeting was to start making preparations for the national policy conference as well as the national elective conference. The meeting also considered discussion documents for the policy conference at the end of January 2012.

The ETC is responsible for advising the NEC on the completeness and cogency of the research conducted. The NEC will have to accept the advice of the ETC on whether sufficient work has been done for the process to proceed, it having no alternative sources of information. The objective of the ETC will be to formulate, under the NEC’s overall guidance, proposals to be considered at the ANC’s policy conference in

June 2012. The policy conference will then further instruct the NEC as to how to prepare for the landmark elective conference in December 2012, at which definitive resolutions will be adopted.

The Economic Transformation Committee perspective on the question of nationalisation

The composition of the ETC and that of the research task team indicate that radical proposals for nationalisation are highly unlikely. Influential ANC and trade union voices have demonstrated no enthusiasm for expropriation with or without compensation. Research team member Paul Jourdan (2010) has argued that nationalisation “could have extremely negative impacts on growth and development, including negative perceptions by investors, massive increases in debt to finance expropriation and a decline in operational efficiency resulting in job losses as a result of the generally poor record in running state-owned enterprises”. Objectives such as increasing fiscal capacity, industrialisation, spatial development and job creation can be better achieved by a variety of other policy measures (Jourdan, 2010).

Former presidency policy head and planning commission member, Joel Netshitenzhe, remains an influential voice in the ANC. He has observed that the key obstacles to investment in South Africa’s minerals sector in recent years have been “infrastructure bottlenecks, long lead-times in acquiring machinery, the volatility of the exchange rate, insufficient capacity within the then Department of Minerals and Energy (DME) in the early days of MPRDA implementation and slow processing of environmental impact assessments..... The challenge, quite clearly, is not whether the mines are in state hands or not ... Even if the mines were owned by the state, without a sector plan, there would be no strategic logic to activities in the sector” (Netshitenzhe, 2010). Netshitenzhe also points to the problem of “capacity and integrity” of deployed ANC cadres in a sector that has “high lootability” (Netshitenzhe, 2011).

NUM meanwhile argued that the MPRDA already gives effect to the Freedom Charter’s call for nationalisation, and that “full scale nationalisation ” should be avoided in favour of a “strategic fund/strategic equity model” of nationalisation (NUM, 2011).

Potential outcomes of the process

Although the process of research, deliberation and contestation appears to be quite open, a number of policy changes appear to have enjoyed the support from a wide range of powerful interests within the ANC that predates ANCYL’s intervention in this area.

The timeline for the ANC’s 2012 elective conference is:

1. February: discussion documents for the June policy conference to be sent out to branches.
2. May: all provinces that are supposed to have their conferences and leadership elections this year must be done by the end of the month.
3. End of May: audits of ANC branches start.
4. June 26 to 29: ANC policy conference at Gallagher Convention Centre, Midrand, where policies that are to be formalised at the December conference, will be discussed.
5. August: audits of ANC branches finish.
6. October: nominations for ANC leadership open.
7. December 16 to 20: ANC elective conference in Mangaung. Mantashe said there would be one organising committee for both the policy and the elective conference, and that would be headed by ANC deputy secretary-general Thandi Modise.
(du Plessis C. , 2012)



First, there is lukewarm but tangible support for the consolidation of state mining assets into a state owned mining company. Although NUM, like the ANCYL, has argued that private investors should be obliged to partner with such a company, Netshitenzhe (2010) expresses an emerging consensus that such a vehicle's asset base "be expanded or reduced through normal processes of acquisition and disposal provided for in the country's statutes and without imposing an unnecessary burden on the fiscus". There is strong opposition to the creation of a company that might act as an instrument of corporate welfare for politically connected mine owners, or for the diversion of public assets (such as pension fund monies) to fund speculative or patronage fuelled investments.

Second, there is widespread if submerged support for the introduction of a resource rent tax for the mining industry. Jourdan has proposed a "mineral resource licensing regime" for all African states that would include a resource rent tax (Jourdan P. , 2011). Godongwana has voiced support for a similar intervention, and informal proposals also circulated in the presidency policy unit during the Mbeki era. It will obviously be important to design a flexible system that can endure changing conditions, while also reserving sufficient returns for investors to compensate them for capital employed and for risk. A resource rent tax has the merit of being a relatively non-distorting tax, which could be administered by the South African Revenue Service. It could in principle be used to diversify the economy and to compensate other sectors for resource boom-induced high exchange rates, perhaps through the creation of a sovereign resource wealth fund.

"We need to introduce a Resource Rent Tax and the receipts should go into Sovereign Wealth Fund, part of which should be used to develop infrastructure, skills and geo-knowledge, including to the benefit of the minerals sector".
Source: (SIMS, 2012)

Third, the abandonment of nationalisation will be traded against a wish list of interventions that have been presented by assorted interest groups within the ANC, government, and trade unions. Mining companies may be obliged to make contributions towards the energy and transport infrastructure they need to export their product. They may be obliged to partner the state in beneficiation interventions and accept a minimum wage system. They may also be obliged to ratify a more comprehensive form of mining charter that sets out ambitious social and political objectives, including deeper BEE commitments, community development schemes, and contributions to sectoral research and development institutions.

There are dangers to the politically charged policy making process the ANC has adopted in this minerals sector. Symbolic policy choices are now harnessed to political leadership struggles in the ANC and its tripartite alliance partners. However, the ANC's policy process is strongly insulated against populist uprisings or politicised mobilisation.

The outcome of the process is likely to see greater levels of state intervention in the mining sector but the doomsday scenario of 'wholesale' mine nationalisation as envisaged by the ANCYL is unlikely to be realised.

Chapter 12 The economic dimensions of the nationalisation debate

A critical aspect of the nationalisation debate is both the tangible and intangible economic impacts that the debate itself and the outcomes of the debate will have on the economy of South Africa. Each of the principal players in the debate viz The ANC, ANCYL, business and labour, define their arguments around the benefit to the country and its people. The ability of the government on the one hand, and the economy on the other, to alleviate the suffering of the poor is fundamental to the debate. This section attempts to provide some classical economic insights to inform the debate and to assess some of the possible outcomes of the options available to government in increasing the level of state participation in the mining sector.

From an economic standpoint, the issues at stake are of the first order of importance for the future of the economy. They include:

- the desirable role of the state in the South African economy
- the fiscal risks or benefits of nationalisation
- the efficiency of the mining sector in South Africa.

THE ATTRACTIVENESS OF SOUTH AFRICA FOR LOCAL AND INTERNATIONAL INVESTORS: ECONOMIC DEVELOPMENT AND THE ROLE OF THE STATE

This section follows on from Chapter 2 and places South Africa in context.

The transformation of modern society through the industrial revolution is one of the most remarkable events in history. Previously parents had lived the same lives as their children and grew richer by accumulating more land, more cattle and more labour.

This economic model had obvious limitations. An entire society cannot prosper in this way. There are too few farms to go around and too few labourers, and the nature of commerce in a closed agrarian economy implies that the cumulative gains of some require losses by others. It is difficult to imagine an entire society becoming six times richer over the course of a century along this path. And yet, this is what the average South African's experience has been since 1870 (Maddison, 2003).

In South Africa, the division of these gains has been notably unequal, with the rise in income for the white population much more than six times over the last century and that of the black population much less. In addition to being unequal, the local rise in prosperity has been modest in comparison to that of other industrialising countries. Average incomes in the United Kingdom are 17 times higher today than during the late 18th century and, in Hong Kong, the current generation is 30 times wealthier than their grandparents.

It is one of the important discoveries of modern economic science that the tremendous rise in income witnessed since the eve of the industrial revolution cannot be attributed to using more land or to a more intensive exploitation of workers, or even to a rapid accumulation of capital. (Solow, 1956) and (Easterly, 2001) Instead, the bulk of the long-term rise in prosperity has been due to a rise in labour productivity, i.e. working smarter, not harder or with more inputs. It is not easy to work more productively and requires not just specialisation but also adaptability, and the use of technological inventions to improve the productivity of our labour. A society that moves along this path of economic development is transformed every generation, with children living lives very different from those of their parents and grandparents.



Economic development is not in the first instance about rising prosperity, it is about this process of transformation where society moves along the path of ever-increasing productivity. Robert Lucas, a Nobel Prize winner in Economics, summarised this argument as follows, “For income growth to occur in a society, a large fraction of people must experience changes in the possible lives they imagine for themselves and their children, and these new visions of possible futures must have enough force to lead them to change the way they behave, the number of children they have, and the hopes they invest in these children: the way they allocate their time”.

He maintains further that “... In economically successful societies, today, these are all familiar features of the lives of ordinary people. In pre-industrial societies, all of these features are rare, confined if present at all to small elites” (Lucas, 2002).

An important reason why this process of economic development has been such a powerful force in the reduction of poverty over the last two centuries is that the rise in labour productivity is a positive sum. One can become more productive without reducing the productivity of anyone else. To the contrary, the rise in one person’s productivity is greatly to the advantage of others, since the price of goods produced by more productive workers declines relative to the price of other goods and services.

However, the process of economic development that transforms society through rising labour productivity, due to specialisation and the appropriate use of technology and capital requires far more extensive co-operation than is required in pre-industrial society. Workers in a developed society depend on others for almost all of their needs and pay for these goods and services with the compensation they earn from their productive labour. In fact, the co-operation is much wider than local or national boundaries in a globalised era.

There is more than one way to organise the requisite co-operation implied by the process of economic development. At one extreme, a government can try to arrange the entire system of co-operation at the national level. The failure of planning at this level is too well documented to list here and the details not relevant to the discussion at hand.

An economy where resources are largely allocated by markets, i.e. the initiative of the private sector, is not without planning, but the planning in such an economy is decentralised. Private sector companies are among the most important areas of planning in a market economy. These firms are at the heart of the process of economic development described above: much of the extensive co-operation that goes with rising productivity occurs in and between firms. Nationalisation of private sector firms in a developing country is therefore a topic of critical importance as it affects a central part of the process of economic development.

In the South African situation, courts will determine the appropriate levels of compensation should the government proceed with nationalising the mining sector. Within this valuation process, the market value of the companies is an important input in this process but there are also factors:

- the current use of the property, the history of the acquisition and use of the property
- the extent of direct state investment and subsidy in the acquisition and beneficial capital improvement of the property
- the reason and purpose of the expropriation.

These factors may serve to lower the amount of compensation to below the current market value of the expropriated firms. However, in the case of South African mines, these considerations would offer little scope for the large discrepancy between compensation and market values because:

- South African mines are currently operated under competitive conditions, which dictate high levels of efficiency. There are few examples of mines being held simply for speculative purposes
- there is a separate legal process for people who were forcibly removed from their land during Apartheid, rendering this consideration of little relevance to the nationalisation of mines
- there is little recent history of net subsidy or other direct government support to the mining sector.

The arguments in this section suggest that the nationalisation of mines is highly unlikely to achieve any pressing social need, which renders that consideration irrelevant as far as the calculation of compensation is concerned.

As a point of departure, the South African government has signed a number of bi-lateral international investment treaties by which government has committed itself to full compensation in the event of expropriation (Keeton & White, 2011). This is entirely relevant to the debate given the international composition of the mining companies' shareholders. For example, at the end of 2010, nearly 53 % of AngloGold Ashanti's shareholders were North American, with another roughly 12 % residing in the United Kingdom. Some 55 % of Impala's shareholders were South African, with 22 % being North America and 10 % being British.

In addition, the shareholders of South African mines include large public and private sector pension funds. Any nationalisation without compensation would pass the cost of nationalisation on to current and future pensioners in all sectors of the economy.

Given the current legal framework, the South African government would have to compensate current owners of mines by an amount not dissimilar to current market value. If government were to take this step, it would imply a significant change in the role of the state in the South African economy. There does not appear to be any one level of state participation that yields predictably better outcomes in terms of economic development (Commission on Growth and Development, 2008). There are certainly examples, especially from East Asia, where government seems to have played a supportive role in the rapid industrialisation of countries like Korea and Singapore. However, there are many more cases (especially in Latin America and Africa) where government intervention has served to hold back economic development. (Tanzi, 2005) and (Easterly, 2001).

In this respect, the concept of a developmental state and the potential for nationalisation of the mines to promote this agenda is an important part of the policy debate (ANCYL, 2010, for example: pars. 56, 59, 50,



70 and 85). However, the concept of a developmental state is not an economic one. The concept typically refers to a government that takes an active and leading role in the economic development of a country.

Whatever the developmental state means though, it has not historically been associated with a strong case for nationalisation, or even large state ownership of productive assets. Caldenty's recent summary of key characteristics of developmental states maintains that: "... this did not imply that it [developmental state] made heavy use of public ownership. Rather, the developmental state tried to achieve its goals through a set of instruments such as tax credits, breaks, subsidies, import controls, export promotion as well as targeted and direct financial and credit policies instruments that belong to the realm of industrial, trade, and financial policy" (Caldentey, 2009).

In South African literature too, proponents such Turok (2010), have emphasised the:

- capacity for planning
- boldness to take decisive policy action
- democratic nature of the developmental state but not state ownership or nationalisation.

In addition to this, the international Commission on Growth and Development, which studied the common features of 13 post-Second World War growth success stories, in 2008 also warned against a preoccupation with the size of government to the detriment of a discussion about the effectiveness of government (Commission on Growth and Development, 2008).

While the Commission recommended that government take an active part in the process of economic development, their advice was not sympathetic to nationalisation. Instead they recommended a risk-management approach to policy making, which entails small policy adjustments that would allow reversal if the results are undesirable (Commission on Growth and Development, 2008: 31). Neither this result, nor the developmental state literature, provides support for the proposed nationalisation of a large sector such as mining in South Africa.

In South Africa, the policy debate followed a similar trajectory (for example the account in Parsons 1999), as policy makers proceeded with modest privatisation during the mid-1990s, having abandoned any further mention of possible nationalisation shortly after the political transition.

To understand the debate that has since emerged in South Africa, one needs to look beyond the development literature to facts correlated with the succession of nationalisations and privatisations in the post-Second World War era, for example Chang et al. (2010), as well as authors who studied predictors of nationalisation as in Duncan (2006) for a range of major minerals and in Guriev, Kolotilin and Sonin for oil (Guriev, 2011).

These facts are relevant to the local debate in that:

- nationalisation occurs much more frequently in the natural resources sector and in utilities than in other sectors of the economy
- the occurrence of nationalisation in the resources sector is positively correlated with the real price of these commodities: high commodity prices have been associated with nationalisation and low real prices with privatisation
- private natural resource companies typically operate with contracts that allow them to appropriate the windfalls from commodity booms
- waves of nationalisation are often common to several countries as a result of the integration of commodity markets.

Reading these facts together gives a possible explanation for the local policy agenda and the rise of nationalisation in the resources sector in Latin America in recent years. This is not to deny that President Morales in Bolivia and President Chavez in Venezuela have ideological arguments for nationalisation. That the ANC Youth League also has an ideological agenda is plain for all to see, (ANCYL, 2010: par. 25).

The argument is, however, that these ideological arguments find fertile ground when commodity prices are higher, as they have been in recent years. The proposal then follows to nationalise those companies that are perceived to enjoy unfair windfalls from a commodity boom.

Venezuela and Bolivia also share a fifth fact identified by Chang et al. (2010) and Chua (1995) that endemic or rising inequality is positively correlated with nationalisation, especially when the windfall gains from high resources prices are perceived to be distributed unequally.

The ANCYL plan of May 2010 for nationalising the mines argues that “... the massive poverty challenges, unemployment and unequal spatial development realities call for an urgent focus on mineral resources” (ANCYL, 2010: par. 5).

At this point, Duncan’s demonstration that natural resource expropriation has been more likely under democracies becomes relevant, and Pint argued that the explanation for this is that the beneficiaries of nationalisation are often concentrated, notably organised labour, while the costs are diffuse and shared by current and future taxpayers. In a democratic system, there is therefore a policy incentive to pursue nationalisation, possibly sacrificing longer-term economic efficiency for short-term political benefits (Duncan, 2006) and (Pint, 1990).

This adds up to an explanation of the nationalisation debate in South Africa, with the following elements: the background is the high level of income (and wealth) inequality in South Africa. This combined with a period of higher commodity prices and the perception that the windfall from these prices has been distributed such that inequality has not been lowered but may have been increased. This is juxtaposed with a democratic political system where a populist leader can mobilise support to serve a majority goal.



THE IMPLICATIONS OF CORPORATE OWNERSHIP AS OPPOSED TO STATE OWNERSHIP

It is ironic that both nationalisation and privatisation can be motivated by the desire to improve public finances. Proponents of privatisation aim at lower government debt with an associated lower interest burden on the budget and, in the case of loss making public enterprises, even a reduction in ongoing expenditure by government. The argument is that privatisation frees up fiscal resources, which will subsequently be available to pursue a government's many other goals.

Proponents of nationalisation argue that the public sector's revenue from nationalised firms may exceed the tax revenue from private firms by a sufficient margin to compensate for the cost of nationalisation. In such cases, nationalisation would increase fiscal resources in the government's budget.

To judge the likelihood that nationalisation will be fiscal burden or benefit, the following factors have to be taken into account:

- government's cost of finance as nationalisation is typically financed through government debt
- the post-nationalisation financial performance of the firms, which is influenced by the goals and incentives for the nationalised firms, as well as the particular industry at stake.

Government's cost of finance is determined by a number of factors:

- the size of the existing stock of public debt
- recent changes in the public debt (surpluses and deficits on the national budget)
- government's track record, especially on inflation and the timely payment of debt.

It follows that governments with low debt and a credible record in macro-economic policy have a better chance to finance nationalisation at comparatively low interest rates, except in cases where the cost of nationalisation is itself large compared with the existing debt stock. The proposal to nationalise the mining sector in South Africa is an example of the latter case. South Africa has relatively little sovereign debt at present and a credible fiscal and monetary track record, but the cost of nationalisation will be so large as to impose a considerable financial cost on government.

The post-nationalisation financial performance of the relevant firms is driven by many factors, not all of which will be affected by the change in ownership. However, three important factors will be affected. They are the:

- goals of the company
- monitoring of performance
- speed and intensity of feedback on corporate behaviour.

"It is estimated that the cost for the state to acquire 100% of listed mining companies only would be just under one trillion Rand and including non listed companies it would be well over R1 trillion (the cost to acquire a 51% controlling share of listed companies would thus be around R500 billion). This exceeds the entire government budget, which is expected to go over R1 trillion rand for the first time in 2012/13. Consequently, either complete nationalisation or 51% at market value would be totally unaffordable and could put our country into a situation where we lose fiscal sovereignty and have to follow the dictates of the Bretton Woods Institutions under a Structural Adjustment Programme (SAP), which would be untenable." (SIMS, 2012)

Starting with the company's goals, it is difficult to define the goals of nationalised firms. The public owns these firms, but is the public interested in the highest net worth for the nationalised firms, or perhaps alternatives such as distributional goals or maximum employment?

There are difficult trade-offs to be managed, for example between productivity and the pursuit of equality (Sinnot, 2010), and the political process is a highly imperfect mechanism for resolving such conflicts. Public choice authors have also identified the many factors other than the public's goals that are likely to influence the decisions of managers at the nationalised firm, including political considerations, the influence of lobbyists and other special interests, and the difficulty faced by the public to write 'complete contracts' for the managers (Schleiffer, 1998) and (Vickers, 2008).

Not only are the goals different for public firms, but so too are the mechanisms that monitor the behaviour of public sector managers (Alchain, 1977). There is no possibility for shareholder oversight with the intensity experienced on financial markets, nor the ability to tie managerial incentives to stock market performance, as an external assessment of the company's performance. Finally, there is no threat of take-over in the public sector, a threat which disciplines agents in a competitive private sector, or a threat of bankruptcy. The repeated bailouts of large state-owned enterprises in South Africa in recent years are a familiar demonstration of the 'soft' budget constraints that frequently arise in these cases.

To summarise these points, managers of a nationalised firm face different and less clearly defined goals, are monitored differently and possibly less effectively, and face slower and weaker feedback when they act inconsistently with the public's goals. For these reasons, nationalised firms are likely to be less efficient from an economic perspective and more likely to be a fiscal burden.

Government's budget is the main vehicle of redistribution in most countries, including South Africa. It is of course possible for nationalised firms to pursue distributional goals on a limited scale, by for example cross subsidisation schemes or softer employment policies (Vickers, 2008). But the net financial benefit of nationalising firms will affect government's ability to pursue all its goals, including the social assistance by which government provides effective poverty relief and redistribution to 15,2 million South Africans and which accounts for almost 11 % of the national budget (National Treasury, 2011b: 38).

Finally, Biais and Perotti (2002) have argued that the choice between state or private ownership will not just affect the outcomes of productive activity, but also shape society's political incentives. Widespread private ownership encourages the public to support the institutions of private property and contract rights that support specialisation and market co-operation, the two key features of rising prosperity identified above. Conversely, state ownership creates dependence on government and lowers the support for these key market institutions. From this perspective, one of the adverse long-term consequences of nationalisation is that it undermines the support for market institutions (Biais, 2001).

THE TRACK RECORD OF NATIONALISATION

The Zambian government's decision to nationalise the country's mines fits the facts described earlier: high copper prices, and a perception that the private mines were reaping most of the benefits in a society with high levels of inequality. That Zambia's copper nationalisation was a failure is no longer controversial. In fact, this year Zambia's president urged the South African government to learn from their experience and not to nationalise South African mines (Rampedi, 2011).



But the reasons for the failure are contested. Sophia du Plessis is among those who have identified a causal link between the nationalisation and the adverse economic outcomes, with an institutional argument (Du Plessis S. W., 2005). By contrast, the ANCYL (ANCYL, 2010) has attributed it to "... copper as a strategic commodity in the world economy [having] gradually lost value and significance", though that is not consistent with the facts.

The copper price did not collapse after nationalisation, though the peculiar financial management of the nationalised mines turned the government inadvertently into "a giant copper speculator" in the words of Stoever (1985: 147). The other effect was the government becoming an unhappy speculator at that, who ended up with less revenue from its nationalised mines than they would have received in taxes under a reasonable counterfactual. It was not just poor financial management though. The project was jeopardised by poor mine management, which led to a doubling of costs and lower productivity, even though copper mines even in neighbouring countries maintained and improved productivity (Stoever, 1985).

A commonly asked question is "... if a privately owned firm is socialised, and nothing else happens, how will the ownership alone affect the firm's behaviour?" (Peltzman, 1971). With regard to the nationalised coal mines in the United Kingdom, how much of the outcome can be attributed to:

- the evolution of the coal market, which is a function of global forces
- developments elsewhere in the British economy, including the labour movement
- the efficiency of the public sector
- the impact of nationalisation.

The challenge of identifying the separate impact of nationalisation cannot only be answered through case studies. One approach to this problem is to identify "natural experiments", i.e. were history itself controlled for all the other relevant factors except for the issue under consideration. Consider the 35 publically funded and 53 privately funded expeditions to the Arctic between 1879 and 1909 studied by Karpoff (2001). He was able to show that the differences in outcomes were not due to different goals, technology or nationality. Instead, large differences in performance (measured as the number of major scientific discoveries, the absences of accidents or deaths, and the health of the participants) were observed along the private-public division of expeditions, with the private ones doing much better. What is more, the public expeditions had the advantage of better funding.

Ehrlich, Gallais-Hamonno, Liu and Lutter (1994) investigated the consequences of state ownership for productivity growth and cost increases in 23 international airlines. They found a productivity penalty of 1,5 % to 2 % per year for state-ownership (Ehrlich, 1994).

Studies of the 500 largest US firms by Boardman and Vining (1989), the 500 largest non-financial Canadian firms by Vining and Boardman (1992) and the 500 largest non-US firms by Dewenter and Malatesta (2001) all found that, after controlling for size, market share and other firm-specific features, as well as macro-economic features that might impact on the selection of ownership, the private firms were significantly more profitable. Where measured, they were more productive than either mixed or outright state-owned enterprises. (Vining, 1992) and (Dewenter, 2001).

Do these results hold for developing countries? Chinese state-owned and mixed enterprises are less productive than comparable private firms, as found by Tian (2000), and the same was found for Indian firms for a cross section in Latin America. (Tian, 2000), (Mujamdar, 1996) and (Chong, 2005).

These results are consistent with the claim that state-managed nationalised companies are more inefficient, the more competitive the private industry was prior to nationalisation. Kole and Mulherin (1997) studied the outcome of 17 American firms with substantial Japanese and German ownership at the outset of WWII that were nationalised for security reasons by the US government. The US government acted like a passive investor, leaving the goals and management structures as before, partly because government wanted to optimise the value of the firms with an eye towards later re-privatisation, which did occur. After controlling for industry-specific features, Kole and Mulherin (1997) showed that these temporarily nationalised firms performed no differently on efficiency and profitability measures than their private competitors. Not only did these firms operate in competitive industries, but Kole and Mulherin (1997) argued that they were left to compete like private firms. The cost in terms of efficiency enters when the nationalised firms start to operate with different goals and less competition than its private sector predecessor (Kole & Mulherin, 1997).

An alternative to the empirical or historical and statistical approaches described in the preceding paragraphs is to examine the preconditions for successful nationalisation to determine whether a particular industry would be suitable candidate. The critical issue in an investigation of this kind is to determine whether the markets will function tolerably well in the particular industry, given the usual complement of market regulations.

Markets can fail when there are very large economies of scale or large externalities, which are costs (or benefit) associated with a particular activity, but not internalised in the cost of that activity. Pollution is an example of a negative externality. The possibility of market failure has motivated a large expansion of the economic activity by government in the course of the last century. In the immediate post-Second World War era, public ownership of utilities was widely implemented, some of it via nationalisation. But enthusiasm for nationalisation as a solution to the risk of market failure waned as

- the reality of government failure emerged
- it became clear that sufficient regulation can ameliorate many of the risks associated with externalities (Tanzi, 2005).

The fact that the resources sector has often been the target of nationalisation is also due to a specific form of the externalities argument, 'Dutch Disease'. But the relevance of this argument is restricted to those few countries where the export basket is dominated by a single or a small number of commodities, and where these cause massive current account surpluses which risk appreciating the currency. South Africa is not among those countries and this potential externality is, consequently, no case for nationalising South African mines.

COST OF NATIONALISATION TO SOUTH AFRICA

The discovery of vast mineral deposits during the second half of the nineteenth century changed the development path of what would become the Republic of South Africa dramatically. An economy based largely on agriculture and services to international shipping was re-aligned to serve the rapidly expanding mining sector in the interior, especially on the Witwatersrand.

A number of factors explain the critical role of gold in South Africa's economic history, including the sheer size of the deposits and the value of the product extracted. By 1911, gold mining accounted for 20 % of GDP and employed 224 000 miners. But the impact of the sector went much further, by stimulating capital markets, services industries and especially manufacturing, such as machinery and explosives. Transport



was needed to and from then emerging industrial heartland around Johannesburg and the mines motivated the development of what would become the continent's best transport infrastructure.

Mining was also of critical importance to government and international finance in the decades after the discovery of the gold and other minerals. Today the export of ore and minerals accounts for around 25 % of export earnings, but this proportion was as high as 70 % in the late 1930s. At the same time, mining drew massive FDI, allowing the economy to build capital much faster than would have been possible from domestic savings alone. The market capitalisation of the sector on the JSE remains high and much larger in proportion to the total market capitalisation of the stock exchange than mining's share in the real economy.

Although the expansion of manufacturing and especially the services sector has caused mining to decline in relative importance for the South African economy, the sector contributed a substantial 9,5 % of gross value added in 2010. While the sector's output has grown only modestly since 1994, productivity has been rising at the same rate as in the dominant financial sector (Du Plessis S. A., 2009). Privately owned mining companies operate in a competitive environment and compete through higher productivity, as one would expect from an industry where market forces work tolerably well. Lately, the sector has struggled in an uncertain regulatory environment and with the risk of nationalisation (Financial Times, 2011). The impact of the nationalisation debate on investment in the mining sector is a real cost that the economy is already paying regardless of the debate's outcome (England, 2011).

Internationally, nationalisation of the mining companies occurs typically when there is a clear financial benefit for the particular government. This is more likely when one or a few commodities account for a large part of economic activity and the tax base. In Venezuela, for example, the state-run oil company accounts for almost a half of government revenue (Hults, 2007). Also, in 2005, Bolivian President Morales nationalised the hydrocarbon industry (oil and gas), from which the Bolivian government gets roughly a third of its revenue, equal to 10 % of GDP (International Monetary Fund, 2010).

The comparable data for South Africa is a tax revenue of R17,9 billion from the mining sector in 2010, which was less than 3 % of government revenue and just 0,7 % of GDP (National Treasury, 2011).

White and Keeton (2011) offered the following calculation: government buys a 60 % stake in the local mining companies at a cost of R970 billion. This would more than double government's outstanding debt, which was R820 billion at the start of the current fiscal year. The higher debt stock would increase government's interest bill by R46,6 billion per year on the optimistic assumption that government can finance the extra debt at existing capital market rates.

But government's revenue would also rise after nationalisation, since it would subsequently claim 60 % of the sector's profits in addition to the taxes it currently collects. In 2010, this would have added R20,9 billion to government's revenue on White and Keeton's (2011) calculation, assuming that government runs the mines as efficiently as the private sector did. A project that would cost government R46.6 billion extra per year to gain R20,9 billion in revenue will diminish the resources government has available to pursue other goals and limit the scope for a more equitable distribution of income within South Africa. These calculations do not take into account the considerable amounts in capital investment that government would have to raise to maintain and expand the mines. As Minister Manuel recently observed: "There are no fiscal resources available through taxes or borrowing to pay for mines or invest in them, even if government were to get these mines gratis"(quoted in England 2011: 4).

A second method to calculate the financial viability of nationalising the mines is to see whether they are profitable enough to yield a positive return on investment by the government. This calculation was done for three large gold mining groups: AngloGold Ashanti, Gold Fields and Harmony. Taking the revenue generated by the South African mines only in these groups, and comparing it to the share of their market capitalisation attributable to their South African operations, provides the yield that government would get by nationalising these mines at market prices.

In 2010, Gold Fields yielded 7 % relative to market capitalisation on local operations, while Harmony reported a net loss and AngloGold Ashanti a yield of 1 %. Comparing these yields to the cost of government debt at around 8 %, and making the same assumption that this cost of finance does not rise with the dramatic rise in government debt, it is clear that nationalisation is financially unjustifiable even under very optimistic assumptions.

In summary:

- the resources sector in South Africa is not subject to notable market failure nor does it pose the risk of 'Dutch Disease'
- the resources sector is competitive and therefore a poor candidate for public ownership. The international evidence suggests overwhelmingly that the nationalised firms would be less efficient in these circumstances. Nationalised mines would have confused goals, worse monitoring and worse feedback compared with existing mines
- nationalising the resources sector will cost government more than it receives
- nationalising the resources sector will limit the scope for distributive policies on the national budget
- the project would raise government debt dramatically at a time when the debt is forecast to rise sharply for other reasons, and the international experience demonstrates the risks associated with this path
- the cost to the economy will not only be measured in the mining sector and in government finances. Higher capital market interest rates will curtail investment across the board, lowering economic growth and curtailing employment growth
- the balance of payments will come under more strain as international investment is discouraged
- nationalising the resources sector will undermine support for those very market-based institutions needed to achieve a higher long-run growth trajectory.

THE IMPLICATIONS OF NATIONALISATION FOR THE FISCAL CAPACITY OF THE STATE

The fiscal regime is important to government and investors. Government needs to raise money to achieve policy objectives, which include issues such as steady fiscal flows, macro-economic growth, economic development and socio-economic benefits. For a private economy, delivery of benefits becomes possible when taxation mechanisms collect sufficient revenues to action government delivery plans. Investors have a more short-term profit goal, which may conflict with long-term government objectives. They are unlikely to commit to long-term investments without security and continuity of tenure, an enabling environment for mining investment, a relatively simple and easy investment regime, and a competitive overall tax burden, which is stable for the duration during which the investment is at risk. Access to local skills, services and goods are also key. A lack of commitment by investors to long-term investments will result in government delivery plans being compromised.

Government payments impact on the cost of mining, which in turn affects profitability, leading to investors favouring alternative investments and destinations. When government owns the industry, it has to make a



fiscal contribution to its mining industry, not only to capitalise and operate mines, but also to sustain the industry through provisions for exploration and research for optimal resource development. Without this, the industry will slowly come to a complete stop. With this sustainability issue in mind, there is not much difference between the requirements of government and private investors. The profit-motive remains the only objective. Without profits to invest in policy objectives, there cannot be delivery of benefits.

General principles

It is widely expected by the public that mineral resources development will lead to the creation of wealth and delivery of benefits to the citizens of mineral-rich countries. South Africa is generously endowed with vast amounts of quality mineral resources and, as a cornerstone of the South African economy, the mining sector has contributed significantly to economic growth, the development of sustainable job opportunities and foreign exchange earnings. Despite these obvious benefits, the expectation gap is perceived to be growing and nationalisation or greater state participation has been identified as a possible solution to the ongoing poverty problems of the country.

The objective of public policy is to ensure that the use of mineral resources is in the best interest of society. Inappropriate tax policy causes conflicts, mostly between government and investors. Reconciling the conflict of interests is possible through an understanding of the risk and reward relationship as it applies to both parties. Balancing company desire for early payback and maximum rate of return with government's desire for secure revenues then becomes a matter of fiscal design so that tax instruments target economic rents. Disturbing the balance will throw the industry into turmoil and result in inefficient development of these natural resources and, consequently, loss of investment, rents and benefits.

Current knowledge suggests that government can claim its share in more than one way. Commonly-used models are nationalisation, participation or shared involvement in the industry, or privatisation and taxation.

The South African mining taxation regime

Over time, the South African government has devised various fiscal instruments to capture a share of mining wealth to fund its responsibilities viz-a-viz social services and infrastructure, environmental protection, economic growth and development, industrialisation and improvement of well-being of its citizens. However, the South African government has not only used mining fiscal instruments for revenue-generation, but also to facilitate (for example, incentives to invest in deep-level gold mining) or discourage various kinds of private sector decisions (for example, higher royalties for unrefined mineral production).

The generation of wealth from mineral resources is only possible through the activities of mining companies and the wealth potential of deposits drives mining companies to invest capital to fund exploration leading to exploitation. Mining carries far higher risks (geological, financial and political) than other economic sectors, and requires large initial capital outlays before production starts. These two factors, coupled with the volatile nature of commodity prices and the lack of availability of finance to fund new mining investments due to the ongoing international financial crisis, cause mining companies to believe that they are entitled to some compensation through tax relief from government. Therefore, they also require benefits (returns) from their investments. In other words, sufficient profits are realised on such capital.

This will compensate for the high risks they incur and maximise shareholders' rewards so that they can return to such shareholders if more capital is required for future development. With the differing objectives of government and companies, the optimal distribution of rents (i.e. economic surpluses/wealth) between the host countries of the mineral resource and the investor (mining companies) has been a major debate. (Otto J. A., 2006) and (Cawood F. T., 2001).

The primary responsibility of the government, when balancing government versus company expectations from mineral development, is to ensure that the fiscal policy environment satisfies their revenue generation objective, as well as the profit objective of investors. It is done by allowing a sufficient flow of funds to investors, so as to attract more investment and prevent them from leaving the country for other more attractive investment destinations. In South Africa, the fiscal instruments for capturing rents that have been experimented with over time include:

- state-owned enterprises
- state-equity participation with private sector (PPPs)
- private sector ownership with the state charging royalties and taxes.

Private sector ownership with the state as regulator and collector of taxes has become the favoured approach over time and, today, the SA fiscal regime incorporates the following instruments:

- direct taxes, e.g. corporate and withholding taxes
- indirect taxes, e.g. value-added tax and duty charges
- special taxes, e.g. mineral royalties
- cost and allowances, e.g. special provisions on capital
- international considerations, e.g. specific stipulations in tax treaties.

The regime is still evolving and Musselli et al (2009) observed that "According to the prevailing economic and social objectives, governments have a wide range of fiscal and quasi-fiscal instruments for their choice. Different combinations of instruments will have a different impact on project profitability, tax revenues and risk sharing."

At present, the government mainly uses the fiscal instruments of charging taxes on private sector mining activities, which include the following deviations from standard corporate tax policy.

- Mineral royalties. These were introduced from 2010 and do not impose arbitrary rates for each mineral/mining sector. The royalty rates are determined on the basis of a single formula targeting rents, after classifying minerals as either refined or unrefined. It fluctuates according to the ratio of earnings to sales for each company.
- Corporate income tax. Taxable income derived from gold mining is taxed on a formula that takes account of windfalls. Taxable income from mining diamonds, base metals and other minerals is taxed on a flat rate of 28 % and these mining companies are liable for a withholding tax on dividends at a rate of 10 %.
- Tax incentives such as tax-deductible allowances for capital expenditure, environmental management trust funds and mining recoupments.



Fiscal flows

The flow of mining tax revenues is dependent on a number of factors, including:

- the nature of property rights to the resource
- the system of fiscal instruments and levies in place for its exploitation
- commodity price movements and currency fluctuations
- capital expensing rules (Grote, 2010)
- annual gross fixed capital expenditures
- sector efficiency
- sales volume or production changes.

The historic importance of the mining and quarrying sector is highlighted by its contribution of 12 % (on average) to total GDP for the period 1945 to 1979, escalating to 20 % in 1980 when the gold price exceeded US\$800/fine oz (Grote, 2010). However, more recently, the contribution of mining to national income and employment has followed a downward trend, with mining's contribution to GDP falling from 13,2 % in 1970 to only 6,5 % by 1998, and the contribution of mining to employment declined from 14,2 % of employment in the formal non-agriculture sector in 1970 to 8,8 % in 1998 (Blignaut, 2001). This trend in South Africa was in line with a general decline in primary sector activities observed worldwide and the strength of other sectors, such as manufacturing and financial sectors.

In 2001, a cash flow analysis of the government's share of rents carried out by Cawood and Minnitt showed that corporate income tax is the most important contributor to state revenue in South Africa, with about 80 % of revenue receipts by the government over the life of a mineral project coming from this source. The second most important minerals tax instrument was identified as the mineral royalty. The remainder of the host country's share of mineral rent was made up of minor taxes that have mostly 'nuisance' value.

Distribution of public rents in South Africa



Source: (Cawood F. T., 2001)

With the metal price boom of 2003 - 2008, South Africa amended its mining tax legislation or contracts with mining companies to increase the revenue collected from mining companies, as its citizens perceived inadequate benefit reporting from mining tax revenue in times of record high commodity prices. This public perception conflicts with the statistical reality illustrated in the above figure, which suggests otherwise.

A possible explanation for this interpretation gap is that the public's view is skewed by the ongoing poverty problems in South Africa, such that the reality of increased tax revenue and efficiency in collection became unnoticed. Another possible explanation is that there is a mismatch in revenues collected by the South Africa Revenue Services (SARS) compared to the actual benefits delivered at a citizen level.

The figure below demonstrates the importance of mining fiscal flows to the SA economy in relation to other sectors. To put the percentages in perspective, mining taxes contributed R17,6 billion in 2010. The following table also clearly demonstrates how mineral rents cause mining companies to be significantly more profitable compared to other companies. What is also clear is how the current tax regime targets the rents through the significantly higher tax to turnover ratio compared to the overall economy. It is important that the public appreciate its contribution. Such appreciation will avoid or counteract populist political statements on nationalisation and its perceived benefits (Cawood F. T., July 2011).

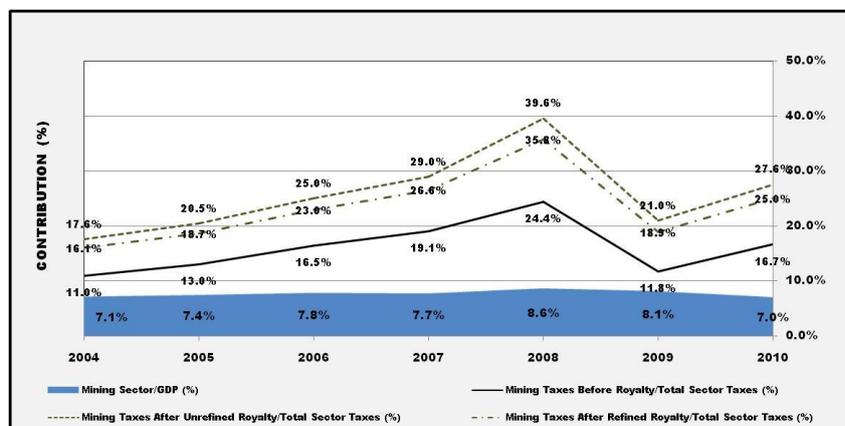
Comparison of profitability and tax take between mining companies and the total economy

All Sectors	2004	2005	2006	2007	2008	2009	2010
EBIT/Revenue Before	11%	12%	13%	14%	15%	11%	11%
Tax/Turnover (%)	1.8%	2.2%	2.6%	2.6%	2.6%	1.8%	2.0%
Mining Sector							
EBIT/Revenue Before	18%	24%	29%	31%	41%	18%	23%
Tax/Turnover (%) WOR	4.3%	5.5%	7.2%	7.6%	8.1%	3.2%	4.6%

Source: STATSSA P0044 & P0441

The next figure illustrates that mining taxes account (on average) for 16 % of total company taxes (solid line), while its contribution to GDP averaged 8 %. The calculation is based on the statistics for the past seven years. The broken and chain lines show how the Royalty Act would have impacted on the actual numbers had it been in force. If the new royalty regime is built into the statistics as published by STATSSA, it can be seen that the mineral sector is about to become even more important to the national economy. The gap between the chain and broken lines is an indication of the penalty that is applicable when minerals are not benefited to the levels stipulated in the Royalty Act. The figure shows that the expected impact of the Royalty Act is about an 8 % rise in mining's contribution to company taxes or, stated alternatively, in boom times mining taxes are expected to rise by about 50 % from 2011. No state royalties were collected from privately-owned land after 1992, unlike when the government collected royalties from mineral activity from publicly-owned mineral rights.

Comparison between SA mining contribution to GDP and fiscus in addition to the potential impact of the new royalty regime



Source: STATSSA



Implications for the fiscal capacity of the state

Otto et al (2007) noted "In matters of mining taxation, governments rarely believe that companies pay too much tax; companies rarely believe that they pay too little tax; and citizens rarely believe that they actually see tangible benefits from the taxes that are paid". It is the tangible benefits at a citizen level that matter in the African context, not the fiscal regime itself.

The government and investors were the only stakeholders who mattered during the colonial and post-colonial eras. But in the evolving era of sustainable development, the citizens can veto any arrangement made by the two major parties during the negotiation phase. The absence of society's licence to practice mining will render prospecting and mining agreements unworkable, and effectively null and void. This has serious implications for the administration of the regime and the reporting of benefits. Administration of the regime is already one of the most important design criteria of a fiscal regime. This requires the following.

- Understanding of the sector. Mining projects are unique when it comes to capital investment considerations, in that they are highly capital intensive; have to take into consideration the risks associated with the quality of the ore body to be mined; require large initial costs for development and establishment; have long lead times and lives; require high working costs once production starts; require development of infrastructure and services; and are susceptible to economic risks, social risks, climatic risks, political risks, etc.
- Access to resources to implement, administer, assess and collect taxes. Effective administration and provision for tax audits have implications for the fiscal capacity of the state. With treasury holdings comprising not only mining revenue but revenue received from other economic sectors, the state has to keep the identity of resource rents in a nationalised context, which will be required for mine exploration and development capital, in addition to provision of social benefits for its citizens.
- Division of revenues so that all citizens can benefit, reporting and communication of benefits. In a nationalised industry, it will be important for the government to assess its ability to afford the production cost associated with depleting natural assets, which is highly capital intensive and has long-lead times before production and recoupment on invested capital can be realised. If production cost is not taken into account, the current system of national accounts (SNA) would convey an incorrect picture of the position of national wealth and social welfare (Blignaut, 2001). This would be a serious omission and of crucial importance to macro-economic management and sustainable development planning, since minerals are non-renewable natural assets, which offer only one chance of getting it right.

"Fiscal Linkages: Capturing the Resource Rents:

Under the current fiscal regime our nation is clearly not getting a fair share of the resource rents generated from its mineral assets. In the 2007/8 tax year the mining industry's return on capex was 118%, on owner's equity 33% and on carrying value 29%. However, for iron ore, manganese, HMS (titanium) and platinum the return on carrying value was 126%, 114%, 120% and 42% respectively. Following the lead of numerous countries we need to introduce progressive tax instruments that capture resource rents. A Resource Rent Tax (RRT) of 50% must be imposed on all mining. It will trigger after a normal return on investment/s has been achieved, thus not impacting on marginal or low grade deposits. A "normal" return (RRT threshold) should be defined as our Treasury Long Bond Rate plus 7% (about 15% currently). A RRT of 50% would yield about R40 billion per annum at current prices. The RRT proceeds should ideally be kept in an offshore SWF (Sovereign Wealth Fund) to ameliorate the strengthening of our currency during commodity booms (the "Dutch Disease"). We need to standardise the mineral fiscal regime by replacing the current gold mining formula tax with corporate income tax plus the Resource Rent Tax, applicable to all minerals." Source: (SIMS, 2012)

Conclusions

With empirical international evidence of rent-seeking behaviour, corrupt practices and past failures of nationalised industries, the possibility of the economic success of a nationalised mining sector in South Africa cannot be guaranteed. The statistics provided in this section show the decision to move to a state-owned mining sector (nationalisation) to be fundamentally flawed as the solution to ameliorate issues, such as the state not receiving adequate resource rents and foregoing better economic development opportunities as a result of private sector involvement.

In light of the failure of most African mineral-rich countries to optimise the opportunities presented by the recent commodities boom due to inappropriate policies, South Africa remains an exception. South Africa's mining taxation system(s) have been successful in generating government revenue, redistribution of this revenue through the annual budget, encouragement of downstream beneficiation, and good social and environmental practices by mining companies, as a result of its mature mining industry and efficient, modern tax administration.

However, this efficiency is restricted to its fiscal administration. Government must still prove itself to be an efficient miner after the recent announcement that the AEMFC will become the state's vehicle to explore, develop and operate mining assets. It is doubtful (and also unfair to expect) that AEMFC can compete successfully with private companies that have been operating since the birth of mining in South Africa 150 or so years ago.

The perceived failure to deliver benefits that reflect the full potential of resource advantage does not necessarily point to a flawed fiscal (taxation) system. Furthermore, before/if the nationalisation drive is to be pursued, it would be necessary to check and compare "...the cost of government running the industry (as opposed to) the cost of private sector running the industry?" (Sanusi, 2011).

Diezani Alison-Madueke (2011), Nigerian Minister of Petroleum Resources, commented "the private sector's understanding, financial and managerial skills should be employed while governments can have equity stake (in mining ventures) to protect the economy as they do not have the means to solely run industry (or mines)".

The developmental state alternative to nationalisation is to improve on what South Africa already has, by:

- continuing to optimise resources rent through its corporate tax and royalty instruments
- converting a comparative advantage on mineral assets to citizen wealth at reasonable cost and manageable frustration of all stakeholders
- demonstrating the benefits of state (equity) participation, which is driven by citizen pressures for tangible benefits and not by fiscal stability. This is achieved through fiscal policy. The combination of BEE policies, the Mining Charter and a state mining company will achieve the outcome in a far less disruptive manner
- investing in capacity for the AEMFC so that it can successfully compete with other companies on equal terms
- improving on all types of infrastructure so that the industry can retain its (natural or economic) competitiveness.



Chapter 13 The geopolitical issues around nationalisation in South Africa

The discussion thus far has centred on the experience of other countries with state intervention and nationalisation models and an assessment of domestic political and economic issues relating to nationalisation. The previous section addressed that matter of expropriation and the issues associated therewith. Alongside the question of compensation consistent with the relevant legislation and appropriate valuation of assets was the question of the rights of foreign shareholder under bilateral agreements.

This section deals with these agreements and the potential complications that may arise on nationalisation. The argument specifically considers the implications of nationalisation should the commitments of South Africa's BITs be invoked by parties protected under these.

On 20 September 1994, President Mandela and UK prime minister John Major signed a bilateral investment treaty (BIT) ensuring that "investment of nationals or companies of either Contracting Party shall not be nationalised, expropriated or subjected to measures having effect equivalent to nationalisation or expropriation (...) in the territory of the other Contracting Party except for a public purpose related to the internal needs of that Party on a non-discriminatory basis and against prompt, adequate and effective compensation. Such compensation shall amount to the genuine value of the investment..." (SA-UK Bilateral Investment Treaty, 1998). This was the first of many BITs signed by the new democratic government, and could represent one of the more significant obstacles to the nationalisation of South African mines.

BITs are legally binding contracts where two sovereign states agree on the treatment of investors and investments across the borders of the contracting states, normally to be adjudicated outside of the host country, should the terms be breached. The South African government has entered into many such agreements over the past 16 years, and has recently been forced to compensate at least one foreign party under the ambit of a BIT³⁹.

The rise of BITs

Expropriation of property is the most severe form of interference of property rights, as it destroys an investor's legitimate expectations relating to its investment (Dolzer & Schreuer, 2008). The demise of European colonial empires in the period following the Second World War posed a challenge to these powers as to how their economic reach would be maintained, given the new-found sovereignty of former colonies. One measure which served to grant certainty of favourable treatment, admittance to markets and access to resources (including land and minerals, among others) was the legal instrument of a BIT. These treaties typically ensure that contracting parties have protection against a denial of justice and other fundamental violations of due process, also agreeing on a policy of compensation in cases of expropriation or nationalisation, among others.

³⁹ An expropriation claim of R2,7 billion was brought against the South African government by Italian-owned Luxembourg-based granite mining companies Marlin and RED Graniti. The case was brought in terms of bilateral investment treaties entered into by the South African government with the governments of Belgium, Italy and Luxembourg on the basis that it discriminates against foreign investors. In terms of these agreements, the case was to be settled through arbitration at the International Centre for Settlement of Investment Disputes (ICSID) in The Hague, part of the World Bank. The case was heard by three arbitrators. Each party had the right to choose one arbitrator but were required to jointly agree on the choice of the third. If unable to, the arbitrations system provides for the third arbitrator to be chosen by ICSID. A settlement was reached in April 2010.

Since the first BIT between the UK and Pakistan in 1959 (Peterson L. , 2006), the negotiation of ‘First world-Third world’ BITs and, more recently, ‘South-South’ BITs has been steady (Malik, 2010). By 2010, there had been an estimated 4 000 BITs signed worldwide. South Africa is a party to more than 50 such treaties, which forms much of the basis of the legislative environment regarding the nation’s international trade (See Appendix 1).

South Africa first entered into Bilateral Investment Treaties after the first democratic elections in 1994. The Department of International Relations and Co-operation (DIRCO) reports the South African Government has, at the time of writing, concluded 59 BITs, of which 28 have entered into force.

As agreements that are the outcomes of a negotiated discourse (and so a creative process of suggestions and compromises), none of the treaties is the same with regard to the rights accorded to contracting parties. Still, there are certain characteristics prevalent across the spectrum of BITs.

PROTECTION AND RESTRICTIONS UNDER BITS

BITs, such as those signed by South Africa and its counterparts, are designed to encourage foreign investment by offering protection of foreign investments. Apart from the statements of ‘promotion of investments’, typical BITs guarantee a range of special privileges mutually agreed between co-signatories. Five such features are considered below.

Under the BITs, parties from a country making FDIs into South Africa typically enjoy all the rights and privileges of South African companies, as by the ‘Most Favoured Nation’ treatment (MFN) and ‘National Treatment’. MFN implies that investors from the source of the foreign investment, Country B, will receive at least the same, but never worse, treatment than a third country’s investors and investments. National Treatment ensures that Country B’s investors are given the right to repatriate profits, dividends and other returns to Country B. Thereby, when doing business in the host country, Country A, National Treatment requires that citizens of Country B are treated as well as nationals of Country A (and vice versa). Such ‘treating of foreigners as nationals’ and MFN-type rights have, however, been left out of some recently drafted South-South BITs, as is particularly evident from Singapore’s BITs.

‘Reasonable’ treatment of investors is typically a primary tenet. While the limits of reasonable treatment by a contracting party may be unclear in certain situations where the demands of social justice and investor confidence may seem at odds; language around ‘fair and equal treatment’ (FET) and ‘full protection and security’ are common features . When BITs include clauses with both ‘reasonable’/FET, as well as ‘full protection’ guarantees, the legal position of the parties is ostensibly stronger, as is argued below.

BITs typically include a proviso explicitly guarding against expropriatory behaviour by either contracting party. In addition to the protection of ownership, the guarantee of continued control (by the investing party) of investments is another common feature. BITs often explicitly state that “investors of either Party shall not be nationalised, expropriated or subjected to measures having effects equivalent to nationalisation or expropriation in the territory of the other Party except for public purposes, under due process of law, on a non-discriminatory basis and against prompt, adequate and effective compensation.”

This illustrates that BITs also preclude partial expropriation, or a gradual, ‘creeping’ expropriation, even if action taken by an apparently non-expropriatory government policy has the effect of expropriation. Differently put, if an investor is deprived by a host government of control or suffers erosion of value



resulting from the confiscation of the whole or part of an investment asset without the investor's consent, it could be considered to be expropriatory behaviour on the part of a host government.

Nonetheless, this does not impinge on the government's right to govern in cases where policies introduced might have adverse effects on the value of certain investments. Judgements have made it clear that legislative action by states, in the execution of their regulatory duties, will alter the nature of the investments, which is inevitable and acceptable. For example: "... governments must be free to act in the broader public interest through protection of the environment, new or modified tax regimes, the granting of withdrawal of government subsidies... Reasonable governmental regulation of the type cannot be achieved if business that is adversely affected may seek compensation..." (Marvin Feldman v Mexico, 2002) and (Fordham Law School, 2007).

Public interest can and must be considered by government, and regulation may be in the public interest, and not primordially undesirable. But, if regulatory measures are 'expropriatory', states will have to compensate companies/investors and, here, states cannot appeal to the need to regulate. As per a 2006 ruling, "when a State enters into bilateral investment treaty obligation like the one in this case, it becomes bound by it and the investment-protection obligations it undertook therein must be honoured rather than ignored by a later argument of the States power to regulate (ADC Affiliate Limited and ADC and ADC Management Limited v Republic of Hungary, 2006).

The line between indirect expropriation and legitimate power may often be unclear, requiring a case-by-case analysis of the specific facts. A US-Argentina BIT dispute acknowledged "in different historical and social contexts the line has been drawn differently and that different international tribunals, including arbitration tribunals under various BITs, have relied on different criteria and have given different weight to them, such as those recognizing public interest on the one side and those protecting the integrity of property rights on the other" (Continental Casualty Company v Argentina, 2008).

Should some form of non-voluntary ownership transfer become unavoidable, the protection contained in BITs commonly includes the agreement to pay an "equitable value", "market value" or "fair value" compensation to the investor. BITs thus expressly protect investors from Country B from expropriation or nationalisation of their investments in Country A.

BITs grant foreign investors the capacity to detour around the domestic court system by an "external arbitration" or "international arbitration" clause in the case of an alleged breach. Thus, when a dispute or alleged breach arises, investors from Country B can rest assured that the protections under the BIT are to be heard and interpreted in a context removed from the South African court system (and irrespective of changes to local laws). In the event of a dispute based on BIT-related rights, the treaty typically allows each party to select one judge, with a third chosen by mutual consensus. Hearings are often held on neutral territory, i.e. not inside the host country.

While most of the provisions of BITs may seem, prima facie, to be no more of a guarantee of 'equal treatment to all' (foreigners being treated as nationals), BITs provide companies registered in Country B with more rights, when operating in South Africa, than South African companies, on at least two counts. Firstly, BITs ensure that foreign investments only are guaranteed to be subject to fair and equal treatment (and compensation for investments expropriated). If local residents in Country A find that, with changing legislation, their domestic investments are expropriated, they cannot use a BIT to claim for compensation. Secondly, should a holder of a foreign investment feel that any of the appropriate BIT's terms are violated, it may sidestep the (local) South African court system and call upon international arbitration where

Country A's local policy and social needs may be irrelevant. While most BITs provide the abovementioned 'typical' rights, there are different nuances from one treaty to the next. Even where the provisions of the treaty do not appear to be open-ended, not all have been tested by arbitration, and there is still some scope for interpretation of these agreements.

The question arises around the tenure of such policies, and especially how they may be cancelled by a government planning a social development trajectory that includes measures tantamount to expropriation without compensation. The South African DTI explains that "many of the initial BITs signed after 1994 will soon expire and this may be an opportunity for the RSA to reassess its position..." (Vis-Dunbar, 2009). Current treaties differ from one to the next in terms of tenure and cancellation. A South Africa-Zimbabwe (also UK and Ghana) treaty can be terminated "ten years after signing", with a one-year lag period between a unilateral cancellation and the treaty's conclusion. Others, such as the South Africa-Brazil accord, state that the treaties are to run "indefinitely" (SA-Brazil Bilateral Investment Treaty, 2009).

Several states have breached the terms of BITs over the past 50 years. As with most disputes, companies or aggrieved foreign investors are reluctant to proceed with litigation and prefer to pursue dissuasive, diplomatic and out-of-court options before resorting to international arbitration. There are several good examples of foreign investors seeking protection or compensation resulting from breaches in the rights accorded by BITs. Peterson (2006) noted that (at the time of his reporting) at least 219 investment treaty arbitration claims had been lodged by more than 60 governments. More often than not it is investors from developed countries who invoke the BITs, as a result of action taken by the governments of developing countries (Peterson L., 2006). An example from this document is Venezuela where the ICSID lists 18 current cases on its website (January 2012) with other reports suggesting that Venezuela faces as many as 28 arbitration cases against the breaking of bi-lateral treaties through its nationalisation programme (Toothaker, 2012).

Because of provisions in most BITs regarding the circumvention of national court systems in the host countries, as well as the desire by governments to keep disputes under BITs out of the public domain, easy public access to the records of these actions are often difficult. The South African DTI has publically admitted error or ignorance on the part of the (1994 - 2004) South African negotiators, which allowed South Africa to enter into agreements heavily stacked in favour of (foreign) investors (Government Gazette, 2009). This is the primary force behind South Africa's ongoing review of BITs.

The case of granite companies Marlin and RED Graniti (with Italian owners, controlled through a holdings company registered in Luxembourg,) against the South African government is a current and local example of litigation under a South African BIT. The case challenged the requirements of the 2004 MPRDA to return privately held mineral rights to the South African government without compensation and to provide equity to Historically Disadvantaged South Africans (HDSAs) in mining companies. Graniti argued that this effectively "extinguished" their mineral rights without providing adequate compensation, and that this

"However, Section 25 (3) [of the Constitution] states that: "The amount of the compensation and the time and manner of payment must be just and equitable, reflecting an equitable balance between the public interest and the interests of those affected, having regard to all relevant circumstances, including
(a) the current use of the property;
(b) the history of the acquisition and use of the property;
(c) the market value of the property;
(d) the extent of direct state investment and subsidy in the acquisition and beneficial capital improvement of the property; and
(e) the purpose of the expropriation.

Consequently, it could be possible that, given "the history of acquisition of the property" and that "the public interest includes the nation's commitment to land reform, and to reforms to bring about equitable access to all South Africa's natural resources" (Section (4)(a)), that an amount less than market value could comply with the Constitution. Nevertheless, South Africa has entered into trade and investment (protection) agreements with most of the countries of the main shareholders domicile/listing (particularly the UK: Anglo, De Beers, Lonmin, BHPB, etc.) which requires compensation at market value. Thus the trade and investment agreement court is likely to rule that it should be at market value, if challenged." (SIMS, 2012)



“The Government correctly notes that the Claimants sought to withdraw their claims prior to the hearing. This followed an agreement in late 2008 that the Department of Mineral Resources would “convert” all of the Claimants’ companies “old order rights” to rights under the MPRDA and would grant a 21% “beneficiation offset” against the Mining Charter’s target of 26% ownership of all mining companies by Historically Disadvantaged South Africans.

The industry-wide level of 26% for conversion of rights was thus reduced to 5% for Finstone, RED Graniti and Kelgran, in recognition of the extent to which they The industry-wide level of 26% for conversion of rights was thus reduced to 5% for Finstone, RED Graniti and Kelgran, in recognition of the extent to which they add value to the mineral resource (dimension stone) that they produce. (For new applications for rights, the offset granted is 15%, while the HDSA ownership target 11%). No other mining company in South Africa has been treated so generously since the advent of the MPRDA, let alone been afforded an equity offset of this magnitude.

Under the relevant arbitral rules of ICSID, any withdrawal requires the other side’s agreement. As the Government refused to provide such consent unless the Claimants agreed to pay the Euro 5.33 million legal costs the Government had incurred, the Claimants formally applied to discontinue the arbitration in November, 2009. The matter accordingly went to a three day hearing before the arbitral Tribunal in The Hague between 12 and 14 April 2010. The Tribunal specifically found that there was “no real winner and no real loser in this case” and that the dispute “cannot be understood in terms of success or failure for either side.” (paras 112-113).

In its award, The Tribunal drew attention to the difficulties the Claimants have faced since the inception of the MPRDA in persuading Government to recognise their significant level of beneficiation. The Tribunal noted that it was “evident from the papers that there was a considerable delay in the formulation and announcement of detailed governmental policies that would be applied under the BEE legislation to the dimension granite industry” and noted that it was “understandable that the Claimants, faced with reforms of great significance to their businesses, should be anxious and wishing fervently for a fuller engagement on the part of the Government with the Claimants’ questions and problems and a swifter pace of decision-making.” (para 125)” (Webber Wentzel, 2010)

was a breach of the FET clause where foreigners would receive the same advantages that nationals were afforded. They argued that the MPRDA process, which required the divestment of shares, implied a dilution for the original investors thereby ignoring the “just and fair” and non-discriminatory treatment under South Africa’s BITs with Italy, Luxembourg and Belgium signed in 2003 (Piero Foresti, Laura de Carli and others v. Republic of South Africa). The Red Graniti case was settled (see box).

In the Graniti case, the foreign investors appealed to the Italian Ambassador to Pretoria to intervene. The Italian embassy in South Africa submitted an aide memoire to the government of South Africa, reminding it of the BITs in play, insinuating its support for the Graniti plight, and also setting forth Italy’s views on the BEE legislation, which would have “a significant and deleterious effect on Italian investors investments in the South African mining industry”.

In cases where there is clearly a legitimate claim, governments are often concerned about ‘copycat’ lawsuits and may seek to settle disputes by policy amendments or financial compensation prior to formal arbitration. Peterson states that it is clear from anecdotal evidence that other uses (of BITs as deterrents of unwished policies) take place “under the radar” (Peterson L. , 2006).

An inability to settle disputes invariably ends up in international arbitration rather than litigation. This action fully removes the dispute from the domestic locus of the host country as in the Graniti case.

As mentioned earlier, in many cases, investment treaties place foreign investors in a stronger position than local residents. An example is the Kessl Case in Namibia (Kessl v.

Ministry of Lands, 2008). The dispute arose after a group of German farmers had land expropriated by the Namibian government. They argued that this was not purely in line with Namibia’s land reform policies, but because they were foreigners. They consequently invoked the Germany-Namibia BIT and other protective

ordinances. The Namibian High Court set aside the expropriation orders and ruled that the Namibian government had failed to comply with the requirements of the Land Reform Act. The court ruled that the Namibian government had violated the BIT between Namibia and Germany.

Leon argues that the implementation of the provisions of the MPRDA on the return of privately held mineral rights and the BEE requirements of the act constitutes ‘creeping expropriation’. He maintains that the MPRDA:

- diminishes the private value of mineral rights by extinguishing all privately owned common law mineral rights
- causes the statutory removal of the erstwhile owner’s right of control
- results in the replacements of absolute rights of ownership with conditional and time-bound state licences
- inhibits free transfer of rights through the need for ministerial consent
- impinges on the rights of the investors as licences are subject to discretionary ministerial suspension or cancellation.

In addition to the MPRDA, the terms of the Charter for the South African Mining Industry (2002) provided guidelines for equity transfers away from initial financiers, which further impinged on the rights and asset value of investors. The Mineral and Petroleum Resources Royalty Act (2009), which grants government the right to royalties from all mining operations, may also represent a form of partial expropriation, as government is extracting rents from mining operations without the consent of the owners.

It can therefore be argued that the post-2004 mineral law reforms in South Africa constituted a slow and incremental encroachment on ownership rights of investors that has resulted in value attrition of these investments. Leon states further that “although investors in the South African mining industry apparently remain in day-to-day control of their investments, which, facially, have not been ‘neutralised’, there are strong indications that, as a matter of international investment law, the core of these investments has either been indirectly expropriated or is undergoing a process of creeping expropriation, which is still ongoing (Leon, 2009).

Given the history of mining in South Africa and the prevailing sentiment of resource nationalism in the country, it may be difficult to prove that expropriation has occurred as a result of the MPRDA and Mining Charter. The South African government may argue, with some justification, that the measures taken by the promulgation of the MPRDA and the signing of the Charter were restitutive, consistent with social justice and are the consequence of historical exploitation and inequalities. This rationale is often accompanied by populist political rhetoric such as redistribution, indigenisation, economic liberation, nationalisation and Africanisation. Legalese such as ‘non-voluntary resource equity transfer to HDSAs’ is often also used.

This confusion between expropriation and legitimate restitution is well illustrated in Zimbabwe. As a result of the confiscation of their farms without payment or other form of compensation, a group of Dutch farmers⁴⁰ lodged a claim under the Netherlands-Zimbabwe BIT’s obligations. An international tribunal found that the intention of the clause was to pay just compensation commensurate to the real value of the assets expropriated (Bernardus Henricus Funnekotter and others v. Republic of Zimbabwe, 2009). The Zimbabwean government argued that it should be permitted to pay a discounted amount of compensation

⁴⁰ One of which was a farmer called Funnekotter



in view of the social purposes behind its land reform efforts. The arbitrators rejected this argument and ruled that compensation for expropriation should be at market value.

These semantics are important. Peterson and Garland argue that terms such as ‘just’ or ‘equitable’ compensation are more malleable variants of compensation specifications, as opposed to ‘market’ and ‘genuine’ value. (Peterson & Garland, 2010). Such wording, which differs from one treaty to the next, added to the limited authority, strengthens Leon’s suggestion that it will only be on a case-by-case basis that the merits of claims can be tested.

The market capitalisation of the listed mining companies on the JSE is around R2 trillion (around 40 % of the total market capitalisation of the JSE). The obligations of government in terms of the foreign exchange requirements and, consequently, the balance of payments, if having to compensate foreign investors under the BITs are considerable and more than likely unmanageable in the current economic climate.

In conclusion, BITs present a major obstacle to the South African government in any attempt to nationalise the mines. Apart from the diplomatic implications and the deterrence of investment from the mining sector and all other economic sectors, the compensation of foreign investors under these agreements may make any such policy economically unviable.

Chapter 14 ANC Mining Policy, legislative framework and process

The development of the MPRDA evolved from a lengthy process of stakeholder consultation and rigorous discussion, which lasted effectively from 1994 until its final promulgation ten years later in 2004. In the ensuing seven years, the tenets of the new statutes were tested in practice. In 2010, the South African Minister of Mineral Resources announced that there would be a review of the MPRDA. As the proposals around nationalisation represent a radical departure from the MPRDA, this process has been put on hold.

However, before one can enter into a new dispensation around the mining industry, it is important to understand the provenance and evolution of the existing regime and the extent to which the objectives underlying the call for nationalisation have already been addressed by these policies and statutes. As the political and ideological foundation stone of state ownership is the Freedom Charter of 1955, to test the MPRDA against this manifesto is an obvious point of departure (ANC, 1955).

The Macro-Economic Research Group, the ANC Minerals and Energy Group and the development of ANC Minerals Policy

Prior to the 1994 general elections, the ANC Draft Mineral and Energy Policy was developed within the Department of Economic Planning at Shell House in consultation with the other members of the tripartite election alliance, Cosatu (represented by NUM) and the SACP. The process was facilitated by the ANC Minerals and Energy Group (ANC MEG), which had emerged out of the Macro-economic Research Group (MERG) in the early 1990s.

Included in the policy development process were a number of key individuals who have since played a significant role in shaping the industry. Cyril Ramaphosa, who led the process that produced the country's new constitution and who had been the first Secretary General of NUM, was Secretary General of the ANC at the time and has since gone on to form a major empowerment player, the diversified investment group, Shanduka, of which he is the chairman. The former governor of the Reserve Bank and Minister of Labour, Tito Mboweni, headed the Department of Economic Planning (DEP), under which jurisdiction the process fell. Mboweni is now Chairman of AngloGold Ashanti Limited. Within the DEP was an extraordinarily talented group of people who led policy transformation process in different sectors. These included:

- Trevor Manuel, former Minister of Finance and current Minister in The Presidency for National Planning, responsible for the National Planning Commission
- Alec Irwin, former Minister of Trade and Industry and later Public Enterprises, under which the existing state-owned mines Alexkor and Foskor fell
- Derek Hanekom, former Minister of Agriculture
- Maria Ramos, former Director General of Finance and current Chief Executive of ABSA bank
- Roger Jardine, former Director General of Science and Technology and now Chief Executive of Aveng
- Dr Zav Rustomjee, former Director General of the DTI and BHP Billiton director, and currently a director of the state-owned mining company, AEMFC
- Dr Paul Jourdan, former advisor to the Minister of Minerals and Energy and Chief Executive of Mintek, the metallurgical research science council. Dr Jourdan is currently heading up the ANC SIMs study released to the National Executive Council of the ANC in 2012 and which will be the seminal document informing the political debate on nationalisation in the run-up to the 2012 policy debate in Mangaung.



The ANC MEG was headed by Dr Paul Jourdan and had within its ranks:

- Patrice Motsepe, Chairman of African Rainbow Minerals
- Nchaka Moloi, former Deputy Director General of Minerals and Energy
- Michael Solomon, former Chief Executive of Wesizwe Platinum and Chairman of the SAIMM Mineral Economic Committee
- Prof Magnus Ericsson, Professor of Mineral Economics at Lulea University and Chief Executive of the Raw Materials Group in Sweden
- Seeraj Mohamed, the director of the Corporate Strategy and Industrial Development Research Programme in the School of Economic and Business Sciences at the University of the Witwatersrand
- Richard Goode, currently with the Development Bank of Southern Africa.

The ANC policy document was probably the first coherent and integrated attempt in the world to incorporate industry participation in and commitment to social and economic development across the value chain of the mining industry, as a pre-requisite for permission to mine (African National Congress, 1990). The fact that it emerged with its principles almost intact after a seven-year consultative process and that these principles were incorporated into the MPRDA almost in their entirety is testament to the thought and strategy that went into the document (Mineral and Petroleum Resources Development Act 28 of 2002). It is significant for the success of the policy that South Africa is one of the few post-colonial countries to emerge from a radical political regime change with an industry intact and healthy.

It is equally important that many of the architects and drafters of the document have been involved in the industry since its tabling, have lived through the implementation and impacts of the MPRDA, both in government and the private sector, are still integrally involved in the debate and provide an experienced continuity to the debate. The fact that the MPRDA has been implemented consistently is a critical factor going forward. The debate around nationalisation cannot ignore an 18-year process which, while it has obvious shortcomings and failures, provides the framework for the debate.

The ANC Draft on a Mineral and Energy Policy (1990)

The draft Mineral and Energy Policy document took as its point of departure the Freedom Charter: “the people shall share in the country’s wealth” and “the mineral wealth beneath the soil... shall be transferred to the people as a whole”.

This was further explored in the Ready to Govern Conference of 1995: “the mineral wealth beneath the soil is the national heritage of all South Africans, including future generations. As a diminishing resource it should be used with due regard to socio economic needs and environmental conservation. The ANC will in consultation with unions and employers introduce a mining strategy which will involve the introduction of a new system of taxation, financing, mineral rights and leasing. The strategy will require the normalization of miners living and working conditions, with full trade union rights and an end to private security forces on the mines. In addition, the strategy will, where appropriate, involve public ownership and joint ventures” (ANC, 1992).

The imperative was to develop policies that would integrate the mining industry with other sectors of the economy by encouraging mineral beneficiation and the creation of a world-class mining and mineral processing and capital goods sector.

The major feature of the policy document was that mineral rights were to vest with the state. The state should be the custodian of all mineral rights and was ultimately responsible for the administration of these rights. Historically, ownership had vested in white hands and often among a few families. Diversification to black ownership should be pursued, the entrance of new players to be encouraged (both local and foreign) and policies introduced to discourage the sterilisation of mineral assets. Mineral resource management policies were to be introduced to manage the impact of the progressive downscaling of the industry, exploration to identify new resources was to be encouraged and incentives were to be introduced to add value to minerals prior to export.

On taxation, the ANC had a clear policy that, because minerals are a non-renewal resource, the state should receive its revenue through both direct taxation of the mines and in the form of a minerals rent through of royalties to be paid to the state. A royalty regime along with state control of mineral rights was advocated, as well as consideration of other tax incentives. The document mooted a “Flow Through Share” system similar to the Canadian model to stimulate investment in exploration. The extension of formula taxation on all mining (not just gold and uranium), as well as the possible imposition of a beneficiation levy at a declining rate, depending on the degree of beneficiation of exported mineral products, was put forward.

On the question of environmental policy/community development, the policy focused on the physical damage caused historically by mining and the inadequacy of the legislation to hold mining companies sufficiently responsible for rehabilitation. It was advocated that there be broader consultation at the planning stage of Environmental Management Programme Reports (EMPRs). This was to include community consultation. A one-stop shop for mine-related environmental regulations was also proposed, as was the setting up of rehabilitation trust funds prior to the advent of mining to cater for rehabilitation after mining. The document advocated the application of the principle of “polluter pays”.

With respect to health and safety, the document referred to the Leon Commission into Health and Safety on the Mines (1995), which had pointed to serious flaws in health and safety issues on mines. Accordingly, a new act was proposed, along with the setting up of tripartite structures to advise on health and safety issues.

A key focus was on minerals development. The policy proposed that to encourage exploration particularly by junior mining companies, data should be made available on known deposits and a ‘one window’ approach adopted where investors and prospectors can obtain the full range of data and information necessary for exploration. The Geosciences Council should assist in making geological data available.

Emphasis was placed on small-scale mining. While small-scale mining was widespread in South Africa, it had been largely ignored by the Apartheid government. Consequently, small-scale miners worked illegally, often causing severe environmental degradation. It was recommended that an institutional framework be developed to support the sector in all areas of mining from permitting through to raising finance and providing technical support.

The document drew attention to the fact that job reservation had skewed the racial composition of the workforce, particularly at supervisory and management levels. Illiteracy was widespread affecting all aspects of mining and safety. It was advocated that affirmative action policies be pursued, a central mining education and training authority be established, bursaries be given to previously disadvantaged groups to pursue tertiary education and Adult Basic Education Training (ABET) be promoted.



As migrant labour was deeply entrenched in the mining industry and had been in existence since the 19th century, the document recognised the dislocation of communities and disruption of family life that had been caused by the industry. It recommended that migrant labour be gradually phased out and that one person per room or else family units replace single sex hostels. While mining companies had the right to hire workers from where they chose, the system of deferred wage payment should be ended and the mining industry should adhere to the ILO conventions on migrant labour.

Beneficiation was seen as a major priority and the policy stated that, although the ratio of exported beneficiated material in relation to raw material exports had improved materially, more could be achieved. In stimulating beneficiation, it was suggested that a small levy be payable on unbeneficiated exported ore, as well as considering tax concessions and finance for beneficiation projects. Support for downstream industries could come from the IDC. Negotiations with the Department of Finance and the Reserve Bank should be undertaken to reduce uncertainty and permit long term planning on beneficiation projects.

The Minerals and Energy Policy Centre 1994

The Minerals and Energy Policy Centre (MEPC) was established within Shell House in 1994 with funding from the Dutch and Swedish governments. It was set up specifically to provide the incoming ANC government with qualified capacity to shepherd in and implement a new mining statutory and regulatory regime. Given the tremendous sensitivity about the mining sector and its contribution to social disruption and inequality on the one hand, and economic development on the other, mining would be a priority industry for transformation. It was anticipated that an ANC minister would be appointed to the mining and energy portfolio.

However, under the Government of National Unity (GNU) that was established after 2004, the former Minister of Foreign Affairs, Pik Botha, was appointed⁴¹. This meant that the conservative Director General of Minerals and Energy, Dr Piet Hugo, remained in office. As Hugo was hostile towards the MEPC and Botha only tolerated the GNU, the MEPC was never utilised in the role for which it was originally intended. Despite having been born out of the ANC, the MEPC was ostensibly not an ANC structure *per se*. It had industry representatives, such as Rick Menell, the Chief Executive of Anglo Vaal, and Magnus Ericsson of the Raw Materials Group in Sweden, on its board.

While the MEPC was in a state of limbo until the demise of the GNU and the appointment of Penuel Maduna as Minister of Minerals and Energy, it concentrated its efforts on community engagement in mining, primarily in the North West and Northern Cape. By the time the ANC had been given control of the ministry, the policy consultative process had assumed a life of its own. While the MEPC played an integral role as the secretariat to the process, it never made the seminal contribution for which it had been designed. Having lost a degree of relevance, it struggled to garner funding from development agencies and was eventually housed at Mintek, and finally disbanded.

The Kwagga Initiative 1994

One of the more successful projects undertaken by the MEPC was the Kwagga Project. In 1996, consultation on the mineral policy process for rural communities commenced by agreement between the

⁴¹ Botha was extremely reluctant to accept the post as he had enjoyed the second most senior ranking under the de Klerk government, occupying the mirror wing corner office in the Union Buildings from De Klerk. It is notable that Botha is absent from the first GNU Cabinet photograph.

government of South Africa and the Canadian International Development Association (CIDA). The process was modelled on the Canadian Whitehorse process (Mining Association of Canada, 1995).

The programme, which was managed by a Canadian advisor seconded from Natural Resources Canada, Ms Lois Hooge, who is still advising on minerals policy in South Africa, assessed community perceptions into mining rights and land issues. It facilitated dialogue and agreements between mining companies and communities affected by mining and set up the first multi-stakeholder process in the Northern Cape to develop regional policy in the province. It also consulted widely with small-scale miners, a group previously excluded from the formal mining dispensation in South Africa.

Prior to the release of the Green Paper on a new mining and minerals policy for South Africa, the Kwagga programme facilitated information sessions for communities affected by mining to assist these communities make informed inputs into the new draft policy. After the release of the Green Paper in February 1998, the Kwagga programme ran workshops across seven of the nine provinces (the Western and Eastern Cape were not included as they were not considered mining intensive regions). (Rukato & Mudunungu, 1998).

On the question of *Mineral regulation*, six of the seven provinces unequivocally supported the state as the custodian of the nation's mineral resources. On *Access to mineral rights*, all provinces felt that if companies intended starting mining operations, consultation with communities should occur throughout the entire process and that local people should be given priority when it comes to employment. With respect to *Small-scale mining*, consensus was that government should provide financial and technical assistance to small-scale miners. Unutilised mineral rights should revert to the state for the benefit of small-scale miners. *Beneficiation* could assist small business, such as in jewellery manufacturing, and there should be co-ordination between the DMR, DTI and provincial departments of Economic Affairs.

With respect to social issues, it was felt that greater integration into the local community should be sought with respect to *Housing and living conditions*, and *Health and safety* should extend to the environment and communities affected by mining. With regard to *Migrant labour*, a balance needed to be struck between the rights of foreign workers and the rights of locals.

On the environment, the "polluter pays" principle should apply, and there should be more integrated land use with greater community participation in decisions on land use. The perception was that the DMR needed to increase its capacity to enforce legislation, recycling by mining companies and to provide a single interface (one-stop shop) on environmental permitting.

Mineral rights needed to go hand-in-hand with land restitution and compensation given to communities for mineral rights where land had been expropriated from them. State ownership of mineral rights needed to be leveraged to benefit communities affected by mining. Partnerships were required between mining companies, communities and local government to leverage services to communities.

A sentiment was also expressed that Fanagolo be replaced by English, although slowly, and industry and national government should work together on skills development.

The Bakubung Initiative (2000)

In 2000, Richard Linnel, a director at BHP Billiton, brought together a group of senior mining executives from corporates and junior mining companies, representatives of small-scale mining, financial institutions



and non-governmental organisations (NGOs) involved in mining, and senior government officials for a meeting at the Bakubung Lodge in the Pilanesberg. The objective was to map a way forward for the development of small-scale and junior mining in South Africa. The initiative was in anticipation of the return of privately held mineral rights to the state and the new rights would be held by a broader group than had been the case under a private ownership regime.

Gerald Harper, a past president of the Canadian Prospectors and Developers Association (PDAC), facilitated the process. Canada had been highly successful in the 1990s in developing its prospecting and junior mining sectors. This was largely attributed to the Toronto Stock Exchange creating favourable conditions for junior companies to raise finance for the higher risk phases of mineral projects. The Flow Through Share system had been particularly successful and had led to an expansion of mining activity by Canadian companies worldwide (Canadian Government Task Force, 1992).

The workshop interrogated the Canadian experience and sought ways of replicating it in South Africa. It was decided to investigate the setting up of a private equity fund (New Africa Mining Fund) to support junior mining and exploration projects. A committee was selected to start a junior mining association (SAMDA).

SAMDA (2001)

In response to Bakubung, an interim committee for junior mining was elected, chaired by Bridgette Radebe (the owner of Mmakau Mining, a small BEE mining company). This interim committee evolved into a formal junior mining association known as the South African Mining Development Association (SAMDA) in 2001. SAMDA subsequently commissioned the MEPC to conduct research into the nature and extent of junior mining in South Africa. Two reports were produced in 2002, indicating that there were a considerable number of junior companies in operation, but not represented by the Chamber of Mines. (Mitchell & Granville, 2002) and (Mitchell & Sakoane, 2002).

SAMDA consequently targeted these companies for membership. SAMDA's membership and status grew in its first few years of existence and the organisation made a number of submissions to government in key policy debates on the:

- draft Mineral and Petroleum Resources Development Bill where SAMDA expressed support for state custodianship of mineral resources, primarily because of the difficulties experienced by junior and emerging BEE companies in accessing useful mineral rights, the bulk of which were held by the large mining companies or landowners (SAMDA, 2001)
- proposed Royalty Bill where SAMDA argued for a profit as opposed to revenue based royalty
- impact of the licensing process on SAMDA members. This report outlined difficulties SAMDA members were having with the licensing process (SAMDA, 2005)
- financing the junior sector (SAMDA, 2006)
- Mining Charter (SAMDA, 2009).

In addition to this, SAMDA has been active on many national forums over the last decade. SAMDA is involved alongside the Chamber of Mines in the Mining Industry Growth Development and Employment Task Team (MIGDETT). The organisation is also represented on the Mining Development Board and the Richards Bay Coal Task Force. It was on the Coal Forum during the energy crises of 2008, and has engaged the Preferential Producers Forum and the Platinum Producers' Forum in bilateral discussions. SAMDA has

also produced a number of research reports on the extent of BEE in mining, and on mining and sustainable development (Mogotsi & Rea, 2011).

Through SAMDA, the junior sector successfully lobbied for entitlement for junior coal producers. In 2006, there were 20 junior coal producers who had access to the 4 million tonnes entitlement per annum at Richards Bay. During the Coal Industry Task Team (CITT) Forum, SAMDA lobbied for more entitlement to the 9 million tonnes in Phase 5. A number of junior and BEE coal companies have secured export entitlement, including Yomhlaba Resources, Mbokodo Mining, Umcebo Mining, Tumelo Coal Mining and Mmakau Mining.

New Africa Mining Fund (NAMF) (2003)

NAMF was established in 2003 to assist the junior and emerging BEE sectors. The fund raised approximately US\$77 million to be invested in mining projects in response to the objectives set for small-scale mining in the MPRDA. The fund was primarily intended to support BEE entities in raising capital for projects in South Africa and other parts of Africa, identified as a result of the Bakubung Initiative. It was to overcome the critical obstacle of seed finance for projects for smaller companies, and assist in driving these projects up the value curve. Companies such as BHP Billiton, Harmony, Gold Fields and Exxaro invested in the fund (New Africa Mining Fund, 2010).

While NAMF subsequently invested in a number of projects, it is questionable whether it either subscribed to or achieved its mandate. Its two most successful investments, Petmin and Jubilee Platinum, did not fit the developmental mandate intended for the fund. In the case of Petmin, NAMF supported transactions such as Samquartz, Springlake Colliery and Somkhele. Jubilee Platinum, a Canadian listed junior, has a prospecting portfolio of platinum projects located on the South African Bushveld Complex. Being listed, these companies already had competitive access to the conventional mining capital markets. The NAMF funding of South African Coal Mining Holdings, listed on the JSE and which owns two collieries (Ilanga and Umlabu) falls into the same category. Other projects that are questionable are Limpopo Coal, which forms part of Coal of Africa's Vele project, and Vermeno Holdings, which has a large opencast deposit of titaniferous magnetite ore in the Bushveld igneous complex⁴².

NAMF did also invest in projects ostensibly closer to its mandate, including the Lapa Goldfields Joint Venture (JV), an early stage gold exploration project in Tanzania, and Africa Resources Limited, which holds a 75 % interest in the Kalukundi project in the Democratic Republic of Congo.

A second fund called NAMF2, with a projected target of US\$300 million, has been set up and will follow a similar format to that of NAMF1. NAMF's investment portfolio suggests that it is closer to a standard profit-driven resource development fund, than the small-scale mining development finance institution (DFI) it was intended to be.

Support for small-scale mining (1999)

In 1998, the MEPC, in conjunction with a market research consultant, undertook a national research study into small-scale mining (Scott, 1998). The study concluded that small-scale mining was widespread in South Africa, and required support to be properly regulated if it was to make a tangible contribution to poverty alleviation. A concern was the environmental damage that accompanies an unregulated small-scale sector.

⁴² Apparently worth in excess of 500 million tonnes



The smaller, near-surface deposits, particularly those within range of potential markets, were deemed suitable to be mined on a small-scale where economies of scale prohibited their exploitation by larger companies.

National Steering Committee of Service Providers to the Small-scale Mining Sector (NSC)

These views were elevated to the evolving national minerals process and integrated into the Green Paper in 1997. As a result, a set of national objectives for small-scale mining development was incorporated into the MPRDA of 2002. Consequently, the National Small-scale Mining Development Framework was launched in 1999. This imperative established the National Steering Committee of Service Providers to the Small-scale Mining Sector (NSC). The NSC comprised a number of service providers, including Mintek, the Council for Geosciences, the Minerals and Energy Policy Centre, the DME, the IDC, the Diamond Board and Khula, a micro enterprise developer (Department of Mineral Resources, 2002).

The intention of the NSC was to identify appropriate pilot projects throughout South Africa and provide support in the form of technical assistance, raising finance and assisting in the development of bankable feasibility studies. By 2000, the NSC was supporting five pilot projects throughout the country. The committee continued to operate until 2005 when the responsibility for small-scale mining was taken over by the DME, who set up a specialised directorate for the purpose of promoting the sub-sector.

Qualifications development

In 2000, the Mining Qualifications Authority (MQA) set up a Technical Reference Group for the promotion of a skills development offering for small-scale mining. This group comprised a “community of experts” whose function was to develop qualifications, learnerships and skills programmes within a particular discipline. Qualifications are registered at a national level and form part of the National Qualifications Framework (NQF). In small-scale mining, qualifications were registered between levels 1 and 4 on the NQF framework.

Mintek

In 2001, Mintek launched a division to support small scale mining. The intention was to develop a school for small-scale mining and provide technical support to the sector. The division provides the following programmes:

- skills development, learnerships and qualifications from level 1 to 4 on the NQF⁴³
- the Kgabane jewellery project. Established in 2001, it champions the development of indigenous craft techniques and goldsmithing
- ceramics manufacture
- brick making
- dimension stone processing
- beneficiation of waste dimension stone from established producers willing to support the Small, Medium and Micro Enterprises (SMME) sector
- Igoli. Training small-scale gold miners in safe mercury free extraction processes.

⁴³ The programme is endorsed by the Department of Labour as an Employment Skills Development Agency

The implications of the Polokwane Conference in 2007

The current debate had a direct bearing on the events at the 52nd National ANC Conference at Polokwane (African National Congress, 2007). With respect to economic transformation, the conference resolved to develop “a strengthened role for the central organs of the state, including through the creation of an institutional centre for government – wide economic planning with the necessary resources and authority to prepare and implement long and medium term economic and development planning”.

It also agreed to the transformation of the structures of production and ownership. In a direct reference to minerals, it stated that “many of our monopolies are based on the nation’s natural resources and we must find ways and means to intervene, including through state custody of these resources on behalf of the people and regulation to ensure competitive pricing of inputs for our downstream manufacturing sector. Furthermore, the small size and relative isolation of our economy leads to monopolies in certain sectors which could be overcome by increasing regional integration with Southern Africa and the continent as a whole.”

In addition, the conference adopted a resolution stating “The use of natural resources of which the state is the custodian on behalf of the people, including our minerals, water, marine resources in a manner which promotes the sustainability and development of local communities and also realizes the economic and social needs of the nation. In this regard we must continue to strengthen the implementation of the Mineral and Petroleum Resources Development Act (MPRDA) which seeks to realise some of these goals. Our programme must also deepen the linkages of the mineral sector to the national economy through the beneficiation of these resources and creating supplier and service industries around the mineral sector.”

These statements are not only consistent with the original 1994 ANC minerals policy and the objectives of the MPRDA, but also consistent with the National Planning Commission. While nationalisation *per se* is not specifically mentioned as a policy option in these statements, it is clear that the ANC sees a more interventionist role for the state in the resources sector. It also envisages a strengthening of the provisions in the MPRDA.

Mining Industry Growth Development and Employment Task Team (MIGDETT)

In December 2008, the Director General of the DMR, Advocate Sandile Nogxina, and the Office Bearers of the Chamber of Mines, SAMDA, NUM, Solidarity and the United Association of South Africa (UASA) agreed to establish MIGDETT (Mining Industry Growth, Development and Employment Task Team, 2010). The purpose of MIGDETT was twofold: to help the industry survive the impact of the 2008 global financial crisis, and to develop a strategy to ensure that the South African mining sector would be better positioned for growth in terms of the next commodity up-cycle. During 2009, much of the focus of MIGDETT was on managing the fallout on the sector from the global financial crisis. This may have had an impact in that job losses in the industry were contained to below 50 000 as opposed to the 100 000 jobs anticipated at the outset of the crisis.

As mining employment continues to contract and it is unlikely that the majority of those retrenched in mining will find future employment, MIGDETT has pursued a blueprint for a future growth strategy in



mining. This envisages a sustainable, export-led growth path that contributes towards a balanced, labour absorbing economic growth⁴⁴.

A number of other initiatives were introduced by the social partners in MIGDETT to ameliorate the effects of the downturn in mining. The training layoff scheme that was initiated by Nedlac and implemented by the Commission for Conciliation, Mediation and Arbitration (CCMA) was advanced for the sector (Daphne & Everett, 2011). The scheme essentially provides employers in distress the opportunity to reduce costs by placing workers on short-time. Typically, employees are paid 50 % of their basic wage (this has been increased to 75 %), as well as the opportunity to receive training, often in an area outside of their current occupations. This training allowance is funded by the Unemployment Insurance Fund (UIF) and the National Skills Fund. The Training Layoff Scheme was only marginally successful, probably because it was only introduced in 2009, after the recession had already taken effect, as well as of the poor visibility of the fund to employers.

MIGDETT also supported the Training Voucher Scheme, which was introduced and managed by the MQA. Essentially, it gives vouchers to community members to receive mining and mining-related training. This too was unsuccessful, as a result of the poor administrative controls, resulting in cases of fraudulent use of the scheme. The scheme has been discontinued.

In 2011, MIGDETT conducted a road show for overseas investors led by the Minister of Mineral Resources, Susan Shabangu, to counteract the negative perception that exists around the South African mining industry. Central to the Minister's theme were the reforms initiated within her department, with respect to the processing of mining applications, including a new online application system.

The New Growth Path

The New Growth Path (NGP) of the Economic Development Department (EDD) (EDD, 2010), is the product of a new department headed by a former trade unionist and presages a developmental state that will offer a worker's utopia, where 'decent' work will prevail, all inefficiencies will be resolved by the control of executive wages, and anti-competitive behaviours will be eliminated.

The NGP seeks to "improve performance in terms of labour absorption as well as the composition and rate of growth" (EDD, 2010: 1). The main indicators for the attainment of these objectives will be evidenced in "jobs, growth, equity and environmental outcomes" (idem: *). Its goal is to "re-industrialize" with an eye on the markets of China, Brazil and India.

The internal logic of the NGP is problematic in that it places development of knowledge and innovation in the far future, while these require the longest period to grow, and thus require immediate action. Moreover, it displays conceptual difficulties in its identification of "core strengths" which are capital equipment for construction and mining, 'heavy' chemicals, pharmaceuticals, software, green technology and biotechnology.

Mining features strongly in the NGP: "The objective of the NGP with respect to mining is to accelerate the exploitation of mineral reserves by ensuring an effective review of the minerals rights regime, lowering the cost of critical inputs including logistics and skills to stimulate private investment in the mining sector, and

⁴⁴ In 2010 only 42 % of the working population in South Africa was employed and only 35 % of people without a matric have jobs. (MIGDETT, 2010)

setting up a state-owned mining company that would co-exist with a strong private mining sector and that promotes beneficiation, as well as greater utilisation of the mineral resource base of the country for developmental purposes, including potentially through a sovereign wealth fund.” (EDD, 2010)

The reference to “capital equipment for construction and mining” is confusing. It is true that the industry is able to build mining infrastructure, but that is quite different to producing capital equipment that is price and technology competitive. There is skill in ore handling and separation, and in both cases some patenting strengths. Beyond this, however, the country cannot be classified as a significant producer of machinery. Hausmann and Klinger (2006) have identified machinery and equipment as a potential growth area, but this is different to having a core competency in mining equipment (Hausmann, 2006). This is a clear case for the state to provide funding for its science councils, particularly the CSIR Miningtek and Mintek, to assist local manufacturers of mining equipment (for example Bell Equipment) and metallurgical equipment to develop these competencies.

There is certainly strength in chemicals (Sasol, Omnia, Foskor, AECI, etc.), and in high-volume manufacture of generic drugs and other pharmaceutical products, but not in drug discovery. If United States Patent and Trademark Office (USPTO) awards are an indicator of drug discovery capacity, then South Africa is way down at position 34, below Cuba.

Regarding software, there is but one South African producer of shrink-wrap software. There is, however, considerable strength in software engineering (Old Mutual, Datatec, Didata, retailers and financial services), an activity that is not recognised as patentable or being eligible for the R&D tax incentive. Companies (reverse) engineer the systems that they require. These comments do not of course ignore niche software development, the two best examples being Thawte and Mxit. The ‘please call me’ innovation is another example.

As to green technology and biotechnology, South Africa is currently a minor player. Eskom has entered green energy very late in the day, and is more than likely to follow the ‘buy’ rather than ‘build’ route. The present level of investment in technology development in these fields is orders of magnitude below what would be needed to achieve breakthroughs and start new industries.

The potential for the NGP to fail is, like the Industrial Policy Implementation Plan, the lack of focus as it seeks to address the entire economy.

Fundamentally, the NGP sees established business as the problem. Negative actions on the part of labour and the state are ignored. According to Mazruder and Van Seventer (2002), the real cost of unskilled labour rose 250 % between 1970 and 1999, that of skilled labour by 110 % and highly skilled labour by 90 %. When one factors in the Adcorp finding that public sector wages now outstrip the private sector by 50 %, South Africa is closer to the European Union, than East Asia in that the surplus “favours wage growth for those in employment rather than the expansion of employment” (Mazumdar, 2002).

South Africa’s accession to the World Trade Organisation (WTO) and the adoption of import parity pricing set input prices and this means that any domestic comparative advantage has been wiped out. The ongoing multiple issues at Eskom have now removed low cost electricity as a comparative advantage.

Parastatals continue to exploit their monopoly position to squeeze producers and consumers to generate profits for the state. It is meaningless for the NGP to identify broadband as a growth area, while Telkom maintains its stranglehold on pricing.



As to technology policy, the NGP essentially ignores this, by only repeating the targets of the supply side in the Department of Science and Technology (DST) Ten Year Innovation Plan, and to offer a vague statement on the need for “adaptation and diffusion of technologies while maintaining our technological edge” (EDD, 2010: 23).

In essence, the NGP does not recognise that capital, labour, state and civil society must function as one. Its underlying stance is best captured in the dichotomy: “the challenge for the developmental state is to minimize costs for business except as required to support transformation toward a more equitable, decent work generating and green economy” (EDD, 2010: 28).

“Too many business leaders have missed opportunities offered by the profound changes since 1994 or failed to collaborate adequately with other stakeholders. For its part, when business leadership has taken the initiative, government has not always responded adequately” (Idem: 29).

The National Planning Commission diagnostic and the mining sector

Vision 2030 of the National Planning Commission is a work in progress that should be understood in the context of discussions on the institution of a developmental state.

Firstly, there is the NGP of the EDD that may be taken as reflecting the position of organised labour, and that presents advocacy designed to enhance worker rights. Its main mechanisms for change are to use competition law. (The Competition Commission now reports to EDD.)

A second major input to the policy environment is the Industrial Policy Implementation Plan II, a product of the DTI, which reflects the DTI’s entrenched accommodationist approach to pressures from industry and labour interests.

The third is there seems to be a general policy confusion: a populist strand expressed by the ANC Youth League; an Africanist strand that is well-embedded in the top structures of government; and unfocused public opinion decrying waste, corruption and service delivery failures.

Vision 2030, with its 87 declared actions, raises no overt threats for the mining industry. Instead it plays a conciliatory role that seeks to transform the economy without destroying its capacities, seeking to grow exports and expand job creation by more flexible labour market policy.

Mining is identified as “good for growth, not great for jobs.” Even so, mining is to be promoted by “giving clear certainty over property rights” and “increasing rail, water and energy capacity”. Mining is to be further developed with infrastructure investment, but in a more environmentally friendly manner. Resource exploitation includes ramping up coal and iron exports, domestic water exploitation, and coal-bed methane development.

In the first 30 pages, the word ‘nationalisation’ does not appear at all in The Vision 2030 document. Even though Vision 2030 worries that the present BEE model is not achieving the desired objectives quickly enough, it may be read as investor and mining friendly.

Chapter 15 Legislative environment and transformation

The MPRDA of 2002 is the primary regulatory framework legislation. The principal laws that regulate the mining industry are the MPRDA and the Mine Health and Safety Act 29 of 1996 (the MHSA). Other related legislation includes the National Environmental Management Act 107 of 1998 (NEMA) and the Royalty Act, while the central BEE legislation is the Broad-Based Black Economic Empowerment Act 53 of 2000 (the BEE Act) (Mining 2010, 2010).

At a non-statutory level, the recently reviewed South African Code for Reporting of Mineral Resources and Mineral Reserves (the Code or the Charter) sets out the required minimum standards, recommendations and guidelines for public reporting of exploration results, mineral resources and mineral reserves in South Africa (Mining 2010, 2010).

INTRODUCTION TO THE MPRDA AND MINING CHARTER

MPRDA (Mineral and Petroleum Resources Development Act 28 of 2002)

In terms of the MPRDA, all privately held mineral rights were returned to the state and a system of prospecting and mining permissions replaced the concept of a mineral ‘right’, which no longer exists under the present statutory regime. In return for the granting of permissions, the applicant has to satisfy a wide range of social, environmental employment, equity and economic commitments to the government. Most of the socio-economic and labour commitments are encapsulated in a Social and Labour Plan (SLP), which is a pre-requisite for a mining licence. Technical and operational work plans and environmental rehabilitation plans are submitted separately.

In principle, South Africa has a progressive, innovative and world-class legislative and regulatory framework. But in practice, laws are not consistently implemented and there is no clear evidence of systematic and objective monitoring or oversight. The inconsistent application of laws and regulations creates significant difficulties, and many decisions by the DMR appear to be taken outside of policy or statutory requirements. There is often a difference in interpretation between the unions, government and the companies regarding the sector legislation as well, motivating a proposed amendment to the MPRDA which should have been undertaken in 2011, but which has been deferred as a result of the impending elections and the nationalisation debate.

In terms of the MPRDA, prospecting permissions are acquired on a first come, first serve basis. To facilitate the introduction of the new mineral statutory regime for the sector, the MPRDA created “transitional arrangements”, under which holders of pre-MPRDA “old order” mining rights had the opportunity to apply to convert these rights into “new order” mining rights by 30 April 2009. There are significant backlogs in processing these applications, as a result of a lack of institutional capacity in the relevant state departments.

Industry has expressed considerable concern that many licences are awarded on the basis of political connection rather than on merit or economic qualification. A number of cases of politicised reallocation of mining permissions, that became available from the failure of mining companies to convert to new order rights, have been reported. The most notable of these are the mineral rights belonging to Arcelor Mittal and mined by Kumba that were accidentally not renewed and were awarded to Imperial Crown Trading (ICT), a company belonging to close associates and family members of the South African President.



Imperial Crown Trading has no experience in mining and technically speaking did not qualify. A Supreme Court order has reversed this decision and returned the rights to ArcelorMittal (Zondo, 2012).

The MPRDA is complemented by other laws such as the Royalty Act, which adopts a commodity-specific system of royalties to the State (Department of Finance, 2008). There is no facility for negotiation on matters regarding tax stabilisation or the fiscal structures governing the mining and metals industry.

While the MPRDA provides the governing framework and structure for the mining industry, the 2004 Mining Charter is a tripartite compact signed by the industry, organised labour (in this case NUM) and the state, agreeing on benefits to previously disadvantaged race groups. It is not a statute or regulation, but its spirit and intent are incorporated into the MPRDA, which enforces its pillars and provisions. Mining companies seeking mining permission must achieve a minimum compliance by means of a points system encapsulated in a scorecard: 15 % BEE by the end of 2009 and 26 % BEE by 2014.

The Mining Charter

The Charter has recently been revised after a consultative participatory review (Department of Mineral Resources, 2010). The Stakeholders' Declaration on Strategy for the Sustainable Growth and Meaningful Transformation of South Africa's Mining Industry resulted from a mining summit convened by the Minister of Mineral Resources in March 2010. It was signed on 30 June 2010 by the DMR, NUM, Solidarity, UASA, SAMDA and the Chamber of Mines of South Africa⁴⁵.

Requirements include mining companies procuring at least 40 % of their capital goods, 70 % of services and 50 % of intermediate inputs from black empowerment entities by 2014. Mining companies are required to achieve minimum levels of 40 % black South Africans in executive, senior, middle and junior management ranks and within the realm of core and critical skills by 2014. They are also required to convert the single-sex hostels constructed for migrant labour since the 1880s into family units by 2014, by which time an occupancy rate of one person per room must also be achieved.

Intrinsic to the concept of broader economic benefit that underpins the South African government's policy on mining and metals is an emphasis on the upstream and downstream value chains. As of the end of 2010, multinational suppliers of capital goods are required to contribute a minimum of 0,5 % of annual income generated from local mining companies towards socio-economic development of local communities into a social development fund. Mining companies are also required to facilitate local beneficiation of mineral commodities, but can offset the value of beneficiation against the 26 % BEE ownership requirement up to a maximum of 11 %.

Section 2.9 of the charter requires that every mining company must report its level of compliance with the Mining Charter annually to retain its permissions. However, the charter is perceived as ambiguous and highly subjective. Even the revised charter still has elements that are vague, imprecise or do not conform with the definitions in the MPRDA itself, which contributes to regulatory uncertainty. The private sector and government interpret the charter in different ways, which is often a cause for dispute.

Framework development process and content and stakeholder engagement and transparency are fundamental to the legislative and policy-making process in South Africa. Any new legislation requires input from the public, NGOs, the private sector and other stakeholders. Parliamentary committees hold

⁴⁵ Migdett 2010

mandatory public hearings on Bills before they are promulgated into law. Civil society, direct and indirect stakeholders and the public are therefore integral to developing the legislative and regulatory framework for the mining sector.

In terms of the Access to Information Act, all documents and licenses are theoretically available to the public, but the bureaucracy involved in obtaining information is often extremely arduous. Applications for prospecting and mining permissions are processed through a web-based system, which is (theoretically) publicly accessible. The MPRDA makes provisions for disclosure of information and data relating to mineral resources, on application, based on the constitutional right of access to information. The health and safety, and social and labour plans, including the community development strategy, are all publicly available (theoretically). Civil society, however, reports that agreements between the companies and local communities are not transparent.

The community development provisions in the MPRDA and charter aspects are consistent with international best practice. Companies are obliged to consult with the local communities and inform them of their activities and plans insofar as they may impact on the community.

They then need to develop a medium-term social plan, together with the communities and local authorities, which includes a local economic development programme. This plan has to be in line with the already-existing development plans for the community. Communities have the opportunity to object, and companies need to include that objection in the application. Once mining rights are granted and operations have commenced, mining companies are expected to engage with communities through stakeholder forums on a regular basis. Stakeholder engagement is mandatory in terms of the MPRDA, National Environmental Management Act (NEMA) and other acts, but the government is not always able to fully implement them as a result of capacity constraints. Consequently, affected communities are in practice often not consulted prior to mining operations.

Considerable pressure exists on companies regarding black empowerment and social requirements. There is consensus among mining companies that they have social obligations but many companies are of the opinion that the requirements set by the government are not realistic in terms of the inadequate pool of appropriately qualified professionals and artisans.

Companies are bound to report on compliance annually to retain their permissions. Follow-up on these reports has, however, been constrained because of a lack of experience, skills and capacity in government. Companies perceive compliance as difficult due to ambiguous interpretations of the law. Government monitoring of mining companies environmental compliance is also monitored by NGOs and a very active media.

In terms of dispute resolution, when a party's rights or legitimate expectations have been materially and adversely affected, or when a party has been aggrieved by any administrative decision taken under the MPRDA, the MPRDA allows for an appeal against such decision. Once the party has exhausted the remedies provided for by the MPRDA, they may apply to the High Court for a review of the administrative decision.

The judicial system is independent and effective as has been demonstrated in the 2011 ICT ArcelorMittal judgement. The bulk of disputes, however, arise out of conflict with communities over surface land use. Although the legislation provides regulation of these issues, 'indigenous' communities are often excluded from Constitutional Court process because of institutional capacity constraints.



Social and Labour Plans (SLPs)

There are three key components of the charter for the development of the SLPs prescribed by the MPRDA:

- human resource development programme
- local economic development programme
- management of downscaling and retrenchments⁴⁶.

The prescription for the human resource development programme includes adult basic education and training, skills development plans, mentorship, bursaries and the implementation of the employment equity plan.

The local economic development programme encompasses enterprise development with the objective of creating viable and sustainable local business, which would survive mine closure. These businesses would have a direct impact on communities affected by mining.

In addition, the companies are obliged to improve housing and living conditions for their workers, as well as to provide balanced nutrition for employees. Companies also have to provide a measurable strategy for procuring from HDSA companies.

A major imperative within the charter was to have a structured approach to managing the impacts of downscaling and retrenchments. Section 52 of the Act and its regulation 46(E) sets out the process to be followed in the event of a company having to retrench employees, as a result of economic hardship and the curtailment of operations. In the submission of an SLP, a company is obliged to establish a forum comprising employers and employees, to be tasked with monitoring the progress of the plan. It is also obliged to identify possible alternative employment for retrenched employees and seek where possible to ameliorate the negative consequences of retrenchments.

In the SLP, the budgets for the programme need to be qualified and companies are obliged to report on progress against these plans and budget to the DMR on an annual basis.

Overlaps between and implementation of the MPRDA, Mining Charter, and Social and Labour Plan

The Mining Charter is almost unique in international mining stakeholder structures in that it is an extra-statutory accord between the industry, government and labour as to how the economic transformation of the industry is to be conducted. It sets targets that have been agreed and subscribed to by the mining industry that inform the MPRDA. One of the problems of the charter is that it has a number of overlapping areas with the statutorily enforced SLPs, with regard to the mining companies' commitments to housing and living conditions, procurement and enterprise development and sustainable development. This has caused confusion in the industry.

⁴⁶ A guideline for a mining work programme to be submitted for an application for a mining right in terms of the MPRDA (2002) Regulation 11(1). DMR, 2004

Housing commitments

From a cost perspective, the most onerous aspect of the charter commitments is the housing commitments. The charter sets ambitious targets for the provision and quality of housing for mine workers. Besides converting or upgrading the single-sex hostels into family units or single quarter accommodation, the mines must also facilitate home ownership schemes for their workers.

There are obviously significant economic implications. The estimated costs to the gold sector alone to achieve occupancy rate of one per room is R1,5 billion, while the coal sector has largely outsourced its housing by providing living out allowances. In the case of lower level employees, this can exceed a worker's monthly salary.

The payment of housing allowances has had unintended and serious consequences. In the platinum sector, where Anglo Platinum introduced a housing allowance scheme as an alternative to hostel accommodation to avoid the capital cost of these conversions, informal settlements rapidly developed on the fence-lines of the shafts. A further consequence is that the burden for providing housing in areas where these allowances are paid has fallen to the municipalities. There is insufficient housing within the vicinity of these mines and consequently employees have had to resort to living in the informal settlements. The presence of cash-flush miners in the informal communities that developed around the mines attracted other elements of the community and these settlements have now become a major problem for the mining companies (Motswenyana, 2010).

While good in concept, the home ownership schemes have been fraught with problems. Workers earning less than R3 500 a month are eligible for social housing subsidies (RDP housing) and, generally speaking, those earning in excess of R10 000 per month are eligible for housing loans from commercial banks. The intermediate group, known as the "gap market"⁴⁷, do not qualify for either. This section also represents the bulk of the mine labour.

Human resource development (HRD)

HRD is the second largest budget item for mines. Most of this is allocated to ABET (MQA, 2011). According to the MQA, some 14 000 employees completed ABET in 2010. ABET is seen as a priority as it is a requirement for formal skills development and is a pre-requisite for employees to enter the National Skills Framework. However, the industry tends to be critical of ABET, largely because there is little opportunity

Home ownership subsidy as covered in President Zuma's State of the Nation Address on 9 February 2012

"President Jacob Zuma said last week in his State of the Nation address that the guarantee fund, managed by the National Housing Finance Corporation (NHFC), would start its operations in April.

From April, people earning between R3 500 and R15 000 would be able to obtain a subsidy of up to R83 000 from provinces to enable them to obtain housing finance from an accredited bank, he said.

The gap housing market comprises households that earn between R3 500 and R7 000 a month, which is too little for them to obtain a home loan, yet too much to qualify for state assistance.

Gap housing is the term used to describe the shortfall or gap in the market between residential units supplied free by the state that cost R100 000 and less and houses delivered by the private sector that cost in excess of R250 000. The R1bn guarantee fund was announced by the government in 2010." (Business Report, 2012)

⁴⁷ There are an estimated 1,8 million people who fall into this category in South Africa.



for employees to practice ABET in the workplace and many of the underground workers who are older than 40 do not see the need for ABET. Fanagolo persists in many cases as the *lingua franca* on the mines.

Local economic development (LED)

LED is also a key element of the SLPs and the Mining Charter. Effectively, these envisage mining companies committing to structured procurement regimes to ensure black participation in the supply of goods and services to the mines. This allows access to and benefit from an important aspect of the mining value chain where the risks and barriers to entry are lower than they are in mining itself. The value chain is also an important dimension of industrialisation around the mines. Mines are also encouraged to assist with enterprise development in mine communities. The Charter stipulates that by 2014 mining companies must procure a minimum of 40 % of capital goods from BEE entities⁴⁸, 70 % of services and 50 % of consumer goods.

Procurement

By the very nature of mining, there is a limited extent to which local purveyors of goods and services can compete with large-scale urban suppliers, and the Charter tends not to take this into account. Apart from the access to technology, which is often the domain of the large urban-based industrial suppliers, local smaller BEE suppliers often lack the required skills, experience and capital to become reliable suppliers to mines. The South African Preferential Procurement Forum (SAPPF) was set up in 2002 to develop a database of accredited⁴⁹ HDSA suppliers for access by mining companies. The SAPPF is a non-profit entity supported by mining company membership.

Community development

Another pillar of the Charter and the MPRDA SLPs is community development. This refers to engagement with communities in the vicinity of the mine site prior to mining and the identification of community development priorities. There are international best practices in this regard provided by organisations, such as the International Council on Mining and Metals (ICMM). In practice, community development usually incorporates education projects such as early child development, high school support services, upgrading classrooms and equipment and teacher support. Health projects comprise HIV and health education, immunisation and the upgrading of hospitals and clinics. Social support programmes, waste management, recycling, and upgrading of community infrastructure are also common components of a community development plan.

The establishment of an umbrella community development agency that would provide guidelines and assistance to community development programmes within the mining industry has been discussed. It has been proposed that Teba Development, an SLP outsourcing agency⁵⁰, merge with the Mineworkers

⁴⁸ A “BEE Entity” is defined as an entity of which a minimum of 25 % + 1 vote of share capital is directly owned by HDSA as measured in accordance with the flow through principle.

⁴⁹ A vendor is only accredited after a process conducted by SAMPPF personnel, BEE rating agencies such as Empowerdex or consulting firms. The vetting process takes into account HDSA’s “economic and legal ownership” of the firm as well as involvement in day-to-day management. Also scrutinised are the structure of the company, the types of shares held by blacks, funding, statutory documents, dividend policies, economic risk and access to information. Vendors on the accredited list are monitored every year to ensure that they continue to comply with the requirements. An accredited supplier can be a black-owned, black-empowered or black-influenced company. An empowering supplier is one which has embarked upon a measurable BEE development programme of its own, and this could include employment equity, skills transfer and buying from BEE companies.

⁵⁰ Teba Development, an organization was set up by the Gold Crises committee in 2000 as an implementing agency for the Social and Labour Plans to be considered as the lead agent in this initiative. Teba has a number of community and

Development Agency, a NUM affiliated development agency, to form a single implementing agency for community development in the mining industry. This could serve to optimise SLP funds from supporting mining companies and leverage funds from treasury for mining community development projects.

The MPRDA requires companies to spend a proportion of their SLP budget in the labour sending areas. In practice, this is usually the gold and platinum companies, which draw labour from rural districts in South Africa, such as the Eastern Cape and KwaZulu-Natal. Projects in these areas are often focused on agricultural support for emerging farmers, SSME capacity building and agricultural cooperatives. Various attempts by mining companies to engage with the Department of Rural Development and Land Affairs on joint venture development projects in labour sending areas have failed.

Community and LED estimates

The aggregate expenditure by mining companies' on community and local economic development projects is extremely difficult to assess as the individual mining company SLPs are regarded as confidential by both the mining companies and the DMR.

In an article on the non profit sector, Ann Brown estimates that during 2009 over R5.1 billion of private sector funding flowed towards development projects and programmes for education, job creation, health, community development, food security, arts and culture, sport and housing. Of this total, the report estimates that the mining and quarrying sector contributed approximately 20 % of this spend, which is significantly more than any other industrial or economic sector. (Brown A. , 2010.)

A typical large mining company will spend in the region 0,5 - 1,5 % of its budget on SLP and Corporate Social Investment (CSI) related projects. For a large mine this could be as much as R70 million per annum. In terms of budget allocation, infrastructure garners the largest share followed by education, HIV/AIDS, welfare and development, skills training and job creation, and health. The Chamber of Mines⁵¹ estimates that its member companies spend approximately R1 billion per annum on community development alone. (COM, 2011.) This is consistent with Brown's estimates.

This is backed up by Tracey Henry, of Tshikululu Social Investments which manages CSI funds for nine companies, mostly in the mining and financial sectors. She said "Anglo American alone, disbursed R80 million in CSI funds during 2008 to more than 250 community projects and a further R400-odd million was spent by the company on other CSI initiatives via their operations. This is a substantial investment towards economic transformation in the country". (Brown A. , 2010.)

"Other empowerment initiatives of the company include the Anglo Zimele enterprise development unit, supporting the creation of 228 businesses with a collective turnover of R1.3 billion and jobs for more than 10 400 people. Procurement deals are made with HDI's (historically disadvantaged South Africans) to the tune of R24.6 billion a year." (Brown A. , 2010.)

Platinum Producers' Forum

The current practice of geographically-clustered mining companies is recognised as being inefficient, but has proved difficult to overcome. A number of regionally-based producers' forums have been established

rural development projects in South Africa and other labour sending countries in SADC such as Lesotho and Swaziland. Teba Development works with other implementing partners and obtains funding from the industry, the South African Government , other SADC governments and international donor agencies.

⁵¹ Grant Mitchell: Personal communication with the Chamber of Mines, 2011



to facilitate the integration of mining community development programmes into these clusters. One of the priority areas identified by these forums is the lack of infrastructure, which plays a significant role in the poor economic performance of the South African mining industry.

One of the more successful forums is the Platinum Producers' Forum started a few years ago in response to the need for platinum producers in the Rustenburg area to co-operate on infrastructure and community development issues. Apart from the electricity crisis of 2008, platinum producers were faced with water shortages, as well as a lack of adequate road infrastructure. The main function of the forum is to improve the delivery rate of sustainable projects in collaboration with communities, by ensuring that there is a common understanding of the problems at hand and no duplication of efforts in addressing these problems.

The Platinum Producers' Forum has identified ways in which the producers can pool resources and engage in co-operative ventures. It has engaged local municipalities in infrastructure development but the efficacy of the model, given the typical lack of institutional capacity and volatile local political dynamics, is yet to be demonstrated. As the platinum sector has successfully pioneered the concept of co-operative social development programmes through the Producers' Forum, this is being replicated in the coal and in the gold sectors.

While the DMR is not opposed to collaboration by mining companies in their community development efforts, it has to date not developed a blueprint for such engagements. One of the problems is that ultimately each company is respectively responsible for its own SLP commitments. The subordination of these commitments to a third party or a system of collective credits for company collaboration is not provided for in the MPRDA.

Sector achievement of the requirements of the MPRDA and Charter

In 2009, the DMR commissioned a research study into Mining Charter compliance (DMR, 2009). In 2010, SAMDA commissioned Kio Advisory Services to write a similar report, but subsequently distanced itself from the findings (SAMDA, October). In August 2011, the Chamber of Mines made a presentation to the Portfolio Committee on Mineral Resources, releasing aggregated figures from Chamber member companies on progress with implementing the Mining Charter (COM, 2011). All information in this section is taken from the above sources.

The results presented in the three reports are widely variable and it is consequently extremely difficult to assess the extent of progress. The Chamber of Mines figures are higher than those of the DMR. The difficulty in reconciling the figures lies in the fact that the Chamber of Mines membership is a subset of the larger mining sector and consequently there may in fact not be a discrepancy. A further complicating factor is that the DMR refuses to divulge the SLPs for individual companies or these companies respective performance against their commitments.

In addition to this, it is difficult to establish the accuracy of the DMR report as the authors do not state how the research was conducted, the sample size or the methodology employed. What is presented is simply a set of numbers with some accompanying explanations. The Chamber presentation in comparison presents a set of numbers indicating progress on the Charter, as well as some of the identified problem areas. Despite the common use of the headings representing the pillars of the charter, the use of different data and different methodology provides for an inexact and possibly fallacious comparison.

Noting these concerns about the integrity or correlation of the data, an attempt is made here to extrapolate the key findings from both the Chamber and DMR documents to provide a perspective on achievement against the statutory objectives.

Human Resource Development (Skills Development Act 97 of 1998)

ABET accounts for most of the spend by companies on education and training and was negotiated as a priority area because it is a pre-requisite for any form of formal skills development programme. It also allows employees the opportunity to enter the National Skills Framework. The DMR research claims that ABET is not being effectively implemented. The department claims that, as employees have to attend ABET after hours, there is no incentive for workers to subscribe to ABET programmes. The Chamber research, on the other hand, indicates that an HRD spend of 4,6 % of mining companies SLP/CSI budgets exceeds the 3,0 % target set for 2010.

The DMR also asserts that there are no proper career path and progression plans and that there is a discrepancy between the reports on skills development plans submitted by companies and what actually occurs. Career pathing tends to concentrate on higher level employees who, it is noted, are mainly white males.

Employment equity

The DMR research claims that only 37 % of companies have developed employment equity plans and that employment equity plans are not submitted to the department. It also claims that only 26 % of mining companies have achieved a 45 % threshold of HDSA participation at management level, while the industry average suggests that 33 % of companies have achieved these levels. It maintains further that only 26 % of mining companies have complied with the 10 % of woman in mining.

The Chamber, on the other hand, supplies the following figures for targets reached on employment equity.

Top Management	28 %
Senior Management	36 %
Middle Management	42 %
Junior Management	56 %

Female employees make up 9 % of senior management and 16 % of middle management.

There is wide discrepancy between the DMR and Chamber findings.

Community development and consultation with affected communities

According to the Chamber, its members spent R961 million on community development programmes in 2010. The Chamber notes that clarifications need to be sought on the formula for CSI spend. The “costs proportionate to size of investment” need to be clarified.

According to the DMR, 63 % of companies engaged in consultative processes with communities, while 49 % participated in regional or local integrated development plans. Only 14 % of the companies extended their plans to labour sending areas, while 37 % showed proof of expenditure in accordance with the SLPs.



Housing and living conditions

The DMR research notes that 26 % of mining companies have provided housing for employees, 29 % have improved existing standards, 34 % have facilitated home ownership and 29 % have offered nutrition to employees or have implemented plans to improve nutrition. Occupancy rate has been reduced on average from 16 per room to four per room. The DMR comments on the problems created by the grant by mining companies of living out allowances to their employees.

The Chamber on the other hand notes that most members do not have hostels. Single occupancy rate for 2011 stood at 24 %. Housing is affected by the life of mine and the inability of local municipalities to provide basic services (electricity and water) for the upgrading of accommodation. Facilitation of home ownership for Patterson categories 3 - 8 is now at 10 %

Procurement

The DMR research indicates that 89 % of companies have not given HDSA suppliers preferential status, while 80 % have not indicated commitment to the progression of procurement over a three to five year time frame. The value of procurement as a percentage of total procurement is 3 % according to their estimate. It is claimed that procurement mainly consists of non-core activities, such as cleaning and food supplies to the mines.

The Chamber estimates the total procurement spend for the South African mining industry is R228 billion (Chamber of Mines, 2011). The procurement figures as supplied by Chamber members comprises capital goods R40 billion (38 % BEE), services R75 billion (46 % BEE), consumables and R50 billion (36 % BEE). Total Chamber members spend on procurement is R165 billion. The key driver has been the Mining Charter.

Equity and ownership

The DMR estimates the current asset value of the industry to be of the order of R2 trillion, indicating that, for a current requirement of 15 % HDSA ownership, BEE equity would suggest an ownership level of approximately R300 billion. The original Charter agreement was a commitment to R100 billion (in 2004 terms) by the mining industry to HDSA ownership levels. The DMR therefore asserts that R100 billion only represents 5 % of net asset current value of the industry. It claims that ownership at present is no more than 9 % and by far the biggest bulk is concentrated in the hands of anchor partners or Special Purpose Vehicles (SPVs).

According to the DMR, the underlying empowerment funding model has resulted in the actual ownership of mining assets intended for transformation purposes being tied to loan agreements. Accordingly, the net value of a large proportion of empowerment deals is negative, due to high interest rates on the loan and moderate dividend flows, compounded by the recent implosion of the global financial markets. The DMR refers to the “rapacious tendencies of the capital markets (that) have consistently thwarted the intended progress towards attaining the goals of transformation, as embedded in the Charter”. The DMR also refers to the lack of HDSA representation at board levels and, as a consequence, the lack of decision making on strategic decisions.

The Chamber estimates the weighted average of BEE ownership in the industry is presently at 28 % as measured according to the Charter. In addition, retirements savings are increasingly black dominated. Some challenges are to ensure that future deals are sufficiently broad based, that there is sufficient cash flow for the BEE partner and the dilemma of full ownership versus lock in guarantees is resolved.

It would appear that the original estimates on the value of the industry and the value of the 26 % BEE quota have now been replaced by the DMR with a new estimate and this has changed what companies can claim as BEE ownership levels. An agreement needs to be reached by all parties on what the current value of the industry is and how the BEE ownership quotas are to be calculated, so that measurement levels can be ascertained.

Reporting and compliance

According to the DMR only 37 % of companies have audited reports, while only 11 % purport to have submitted their progress reports to the DMR. It is also alleged that mining company compliance data is not subject to independent audits by BEE verification agencies. The Chamber claims that its members have, as far as they can ascertain, submitted compliance reports both to the Chamber and to the DMR. KPMG, in its annual BEE compliance survey, which covers a wide range of JSE and multinational companies including mining companies, found that 90 % of these companies used BEE rating agencies in monitoring compliance (KPMG, 2010).

Mining companies own BEE evaluation

Because the serious discrepancies between the Chamber of Mines and DMR research findings, the Parliamentary Minerals Portfolio Committee called for submissions from individual companies. The committee asked how companies structured empowerment deals if they had already met the 26 % empowerment target.

BHP Billiton replied that their BEE partners were given equity on property that had been contributed to projects, and that deals were never structured too onerously for the partners (Lund, 2011). Anglo American claim to have reached 26 % BEE ownership. Godfrey Gomwe, the chief executive officer, said that the government research only calculated ownership at holding company level, while ownership at asset level was overlooked. Gomwe said that Anglo had concluded R60 billion in BEE transactions since 1994, and had been responsible for setting up a number of BEE companies, such as ARM and Exxaro. Anglo had “acted like a bank” and contributed towards vendor funding (Lund, 2011).

In a snap survey conducted by SAMDA on junior mining BEE transactions in 2010, it was found that the smaller junior mining companies expected the BEE partner to raise their own capital for the transaction. This often resulted in these BBE entities diluting their shareholdings to raise finance for expansion projects⁵².

⁵² Internal SAMDA survey on methods of financing BEE transactions, 2010.



Conclusions

The evidence on the extent of transformation in mining in South Africa is at best unreliable. This is because there has been no systematic survey, using a commonly agreed baseline, on the impact of the Charter on the mining sector. The government is deeply suspicious of the statistics provided by both the Chamber and individual mining companies, while the industry regards the government sponsored research as inadequate and insufficiently well researched. What is needed is an independent audit, which starts from an agreed premises (for example the current market capitalisation of the industry) and includes a sample of a cross section of the industry and not just large companies represented through the Chamber.

These divergent assessments are a matter of considerable concern in that, unless the impacts of measures currently taken can be credibly and independently assessed, the perceptions of inadequate achievement (on the part of government and left-wing political antagonists) or achievement (on the part of the industry and its investors) cannot be reconciled, and the debate will continue interminably with significant damage to the industry.

A TECHNO-LEGAL APPRAISAL OF THE SOUTH AFRICAN MINING LEGISLATIVE REGIME AND ITS IMPLICATIONS FOR NATIONALISATION

The current Minister of Mineral Resources has stated, on numerous occasions, that the nationalisation of the South African mining industry is not the policy of the ANC. The recently published SIMS report reiterates that full scale nationalisation would be an unmitigated disaster, and has suggested alternatives. With all the debate and uncertainty around nationalisation and, because the SIMS report is still to be accepted as policy in Mangaung in December 2012, this section looks more closely, from a techno-legal perspective, into legislation relevant to mining and the possibilities that exist as regards the issue of nationalisation.

The Constitution

The Constitution of the Republic of South Africa Act (1993), which became known as the Interim Constitution, signified a massive change from the previous regime. In addition to providing the basic principles for the drafting of the Final Constitution, as contained in Chapter 5, it also contained a set of Fundamental Rights (in Chapter 3) and created the Constitutional Court (CC) as per Section 98 (Constitution of the Republic of South Africa Act, 1993).

The Constitution of the Republic of South Africa Act (1996) (Constitution) was approved by the CC in two certification cases (The Constitution: The certification process). This Constitution was also referred to as the “Final Constitution” as it contained all the rights available to the citizens of South Africa and rendered finality to the issues it covers. However, to date, the Final Constitution has been amended 16 times, with the last amendment being the Constitution Sixteenth Amendment Act of 2009. While it is unimaginable that the multiparty talks and the two certification cases by the CC had been so remiss as to necessitate 16 amendments in 15 years; it also could attract the criticism that the issues have not been finalised and that the Constitution is subject to the ANC dominated Parliament.

Applicable mining legislation

Mining Rights Act 51 of 1991

This Act is the last mining legislation that had been promulgated by the Apartheid government, prior to the first democratic elections.

While the Act required the issuing of a mining authorisation to mine in terms of Section 9; in looking at the definition of “Holder” in Section 1, it is clear that the Common Law position as enunciated by the maxim *cuius est solum, eius est usque ad coelum et ad inferos*⁵³ applied. This maxim essentially entailed the owner of the land being declared the owner of the minerals that occurred thereon or therein.

An essential development was the introduction of the principle of rehabilitation in Section 38 and the submission of an EMP as per Section 39 (Mining Rights Act, 1991).

This act was repealed by the MPRDA (2002).

⁵³ Latin for whoever owns the soil, it is theirs up to Heaven and down to Hell is a principle of property law which can be traced back to 1766.



Mineral Policy

While the White Paper: A Minerals and Mining Policy for South Africa (1998) (Mineral Policy) is not a law per se, it does form the basis for all mining legislation that has and is shaping the current environment. The Mineral Policy covers all aspects of mining in South Africa and considers many of the views of interested parties, attempting to align them with the intention of the ANC government. As the Mineral Policy (1998) stated: “The changes which have come about in our country make it necessary to prepare the industry for the challenges which are facing all South Africans as we approach the twenty-first century.” (DME, October 1998).

“The review process has taken account of the problems and opportunities confronting the mining industry against the backdrop of changes in the country’s policy and institutional environment. In particular, the passage to the Mine Health and Safety Act of 1996 will have far-reaching impacts on the industry in the areas of health and safety and human resource development. Changes in labour legislation and the introduction of employment equity legislation, as well as the reform of the environmental regulatory system, create a dynamic context for this policy review. Beyond our borders increasing competition, both in commodity markets and for investment, from mineral-rich countries that have liberalised their economic and political systems to attract investment are significant influences on the policy reform process.” (DME, October 1998).

As can be surmised from the above, the Mineral Policy is a wide-ranging document that encapsulates all aspects of the South African mining industry.

After considering the existing circumstances of the mining industry at that time, the ownership of mining rights, provisions for intervention by the state, private ownership, state ownership, tax on mining rights and the need and capacity for change (Mineral Policy), the policy stated the following with regard to ownership of mineral rights:

“Government recognises the inherent constitutional constraints of changing the current mineral rights system. However, in terms of the Constitution the State is bound to take legislative and other measures to enable citizens to gain access to rights in land on an equitable basis. In addition, it empowers the State to bring about land rights (including mineral rights) and other related reforms to redress the results of past racial discrimination. Furthermore, article 2(1) of the UN Charter of Economic Rights and Duties of the State grants to States full permanent sovereignty, including possession and disposal, over all its natural resources. Government therefore does not accept South Africa's current system of dual state and private ownership of mineral rights.” (DME, October 1998).

The salient issues here are that:

- “government’s long-term objective is for all mineral rights to vest in the state for the benefit of and on behalf of all the people of South Africa
- state-owned mineral rights will not be alienated.” (Mineral Policy).

This indicates that the outright nationalisation of the mining industry was not an intent of the government at the time of changing the mineral regime into the current system. However, it is disappointing that the Mineral Policy does not effectively deal with issues affecting communities. For example, in Article 1.3.1.2.vii, the policy makes the comment: “Provision has been made in the Constitution read with the Restitution of Land Rights Act, for relief to persons or communities who were dispossessed of rights in land under any

racially discriminatory law after 19 June 1913. Mineral rights are rights in land and can therefore be subject to the Act.” (Mineral Policy, 1998).

Communities

From this comment, it would appear as if communities claims to mineral rights are limited to the Restitution of Land Rights Act (1994). While the Restitution of Land Rights Act (1994) is important, and goes a long way in recognising communities rights to land, coupling mineral rights to the Act restricts any other claim that communities would have to mineral rights, such as obtaining Common Law ownership to land.

The Mineral Policy (1998) further provides, in Article 1.3.2.iv, that “Government will address past racial inequalities by ensuring that those previously excluded from participating in the mining industry gain access to mineral resources or benefit from the exploitation thereof.” (Mineral Policy, 1998).

Communities appear to be considered in the Mineral Policy (1998) by virtue of this comment. However, it is too vague. As long as a person or group of people meet the criteria of “previously excluded from participating in the mining industry”, they qualify for benefiting as per the Mineral Policy. If communities are weaker (economically) or have not been made aware of their mineral rights, and a “previously excluded” person makes an application for the mining rights, then that community could lose out on that investment.

Chapter 3 of the Mineral Policy (1998) does provide for community issues but deals with issues such as health and safety in Article 3.1., human resource development in Article 3.2., housing and living conditions in Article 3.3. and migrant labour in Article 3.4. While communities could be included in any of these categories, there is no specific intent to protect them, unless they have been directly employed at a particular operation.

The Minerals Policy (1998) does provide a small measure of protection to communities directly in Article 3.6.4.i., which states that “Government has an obligation to assist employers, employees, industry suppliers and mine-linked communities in anticipating and managing the consequences of large-scale losses.” Unfortunately, this provision is limited to job losses. Short-term assistance is provided for in this instance in Article 3.6.4.(d), which states that “Communities which are severely affected by large-scale retrenchments will be supported to identify alternative areas of economic activity”.

The closest the Mineral Policy (1998) comes to the effective protection of communities and their interests, is a consideration in Article 6.3.3.2(i) that “A forum should be established where the views of communities affected by mining could be heard.” This view has however been watered down significantly in Article 6.3.4., which states that “A statutory board will be established that will advise the Minister of Minerals and Energy on mining and mineral matters that fall outside the Mine Health and Safety Act. It will provide a forum in which government departments, representative of the principal stakeholders, viz. business and labour, as well as other interested parties, can debate issues that bear upon existing or new policies. The board will inter alia be required by law to advise the Minister on whether, when and how, to intervene in cases where a dispute arises in the granting of prospecting, mining and retention licences.”

With such poor consideration of communities in the Mineral Policy and with only one helpful suggestion being considered and then watered down, it would be an interesting exercise to see how the various mining legislations deal with communities.



Mineral and Petroleum Resources Development Act 28 of 2002

At the outset, it is interesting to consider a few definitions unique to the MPRDA (2002). The first definition that needs to be considered is 'Broad-based economic empowerment' which, in Section 1, is defined as a social or economic strategy, plan, principle, approach or act aimed at:

- redressing the results of past or present discrimination based on race, gender or other disability of historically disadvantaged persons in the minerals and petroleum industry, related industry and in the value chain of such individuals
- transforming such individuals to assist in, provide for, initiate or facilitate
 - the ownership, participation in or the benefiting from existing or future mining, prospecting, exploration or production operations
 - the participation in or control of management of such operations
 - the development of management, scientific, engineering or other skills of historically disadvantaged persons
 - the involvement of or participation in the procurement chains of operations
 - the ownership of and participation in the beneficiation of the proceeds of the operations or other upstream or downstream value chains in such industries
 - the socio-economic development of communities immediately hosting, affected by supplying labour to the operations
 - the socio-economic development of all historically disadvantaged South Africans from the proceeds or activities of such operations" (MPRDA, 2002).

The second definition that bears consideration is "historically disadvantaged person" who, in Section 1, is defined as:

- a) "any person, category of persons or community, disadvantaged by unfair discrimination before the constitution took effect
- b) any association, a majority of whose members are persons contemplated in paragraph (a)
- c) a juristic person other than an association, which
 - i. is managed and controlled by a person contemplated in paragraph (a) and that the persons collectively or as a group own and control a majority of the issued share capital or members' interest, and are able to control the majority of the members' vote
 - ii. is a subsidiary, as defined in section 1(e) of the Companies Act, 1973, as a juristic person who is a historically disadvantaged person by virtue of the provisions of paragraph (c)(i)". (Mineral and Petroleum Resources Development Act 28 of 2002).

While the former definition spells out, in detail, what constitutes broad-based economic empowerment, the latter created a new class of person in the South African legal system. This new class of persons are to be the beneficiaries of the broad-based economic empowerment objectives contained in the MPRDA (2002).

These definitions highlight the basic premise of the MPRDA (2002) – to redress the imbalances of the past and transformation, as far as the mining industry is concerned. Further, such transformation is aimed at a specific class of people based on discrimination and not race.

Chapter 2 (Sections 2 – 6) of the MPRDA (2002) consists of some fundamental principles that apply to the new minerals regime, with Section 2 dealing with the objectives of the MPRDA (2002). From this, it can be

seen that there is an intention to utilise the revenues from the natural resources of the country to boost the social and economic development of all South Africans, as well as those persons living nearby mining operations.

In addition, the Common Law maxim of *cuius est solum, eius est a coelo usque ad inferos* has been changed by Section 3 of the MPRDA (2002), which essentially transferred ownership of the mineral resources to all the people of South Africa with the state acting as the custodian thereof. This, in effect, is a reflection of the mining provision of the Freedom Charter (1955), which provided: “The mineral wealth beneath the soil, the Banks and monopoly industry shall be transferred to the ownership of the people as a whole.”

While this was the most significant change, there were other changes as well such as the introduction of various licence regimes to facilitate the state’s custodianship of the mineral resources.

It is worth noting that the MPRDA (2002) has its detractors. Leon, a mining lawyer, has stated that the MPRDA has led to a significant decrease in mining activity in South Africa (Editorial, 2008). This comment elicited a rebuttal from the DMR, which maintains that the figures quoted by Leon were an indication that the industry was not in decline when looking at the industry as a whole (Zikalala, 2008). However, Leon seems to be supported in a report by Radebe and Mabanga (2008) that “investors are shunning South Africa amid what they claim are excessive regulations and slow administrative processes”.

Communities

Communities are considered in the MPRDA (2002) in that Section 104 makes reference to a preferent right that gives communities an opportunity to participate in the mining industry.

The 2007 World Investment Report (WIR) reflected positively on the preferent right as follows: “Transnational Corporations and other mining companies that form partnerships in the context of preferent rights are likely to benefit from security and continuity of tenure afforded by the rights granted. Because of the potential benefit for companies, communities have been advised to consider the credentials of different applicant mining companies before making a decision. Consideration may be given to a company’s technical competence for extracting a specific mineral, its financial strength and any history of its relationships with other communities. The decision may also be influenced by the company’s commitments to the social plan, labour plan and other requirements” (World Investment Report, 2007).

The WIR (2007) goes further to state: “Regardless of whether or not a community holds a preferent right, the law requires the involvement of communities in decisions that affect them, and the integration of their development plans with those of local municipalities. Community assistance includes any contribution to skills development, sharing of infrastructure, provision of social (government) services through social plans and provision of business opportunities to communities through procurement.”

While these comments seem to indicate a support for the preferent right provisions, the WIR (2007) also stated that: “In situations where the presence of the corporation and its resources is many times larger than a government presence, the key is to facilitate and improve capacity for service delivery rather than to assume the responsibilities of the government.”

It is true that a mining company cannot be expected to take on the role of the government in the providing of many social services. Companies would, however, need to ensure that the communities affected by their operations are not side-lined and they cannot neglect ‘indigenous’ peoples (IPs) simply because it falls within the sphere of government responsibility.



The MPRDA (2002) also has two schedules, with Schedule I dealing with repealed or amended laws and Schedule II dealing with transitional arrangements. Item 2 of Schedule II states its objectives to be to:

- ensure that security of tenure is protected in respect of prospecting, exploration, mining and production operations which are being undertaken
- give the holder of an old order right, and an OP 26 right an opportunity to comply with this act
- promote equitable access to the nation's mineral and petroleum resources. (MPRDA, 2002)

In pursuit of these objectives, Schedule II provides for the continuation of the “old order rights” in the transition between the Mining Rights Act (1991) and the MPRDA (2002). As per Item 6, the old order prospecting right continued until 2006, while the old order mining right, as per Item 7, ended in 2009, with Item 10 providing for the continuation of the environmental management plan of the Mining Rights Act (1991) until the implementation of the MPRDA (2002).

Schedule II's Item 11(1) makes specific reference to communities in that it allows for the continuation of all royalty payments to them (MPRDA, 2002). However, the communities, as per Item 11(2), have to provide the minister with details of the “usage and disbursement of the consideration or royalty”, and, as per Item 11(5) “inform the Minister of their need to continue to receive such consideration or royalties and the reasons therefore. . .” (MPRDA, 2002)

However, Item 11(7) provides for the continuation of the receipt of royalty payments, subject to the minister's terms and conditions (MPRDA, 2002). It seems that communities who do not report on their royalties received to the minister are not entitled to continued receipt. As far as can be ascertained, only one community has reported their royalty receipts and requested for the continuation of such receipt but did not meet the terms and conditions of the minister. As such, no community royalties are recognised in South Africa since the coming into effect of the MPRDA (2002).

It should be noted that the MPRDA (2002) has been amended by the Mineral and Petroleum Resources Development Amendment Act (2008). However, due to various contradictory provisions, such as those relating to community issues, it seems that this amendment will not be made effective. The DMR is working on another amendment and, therefore, any discussions on the Mineral and Petroleum Resources Development Amendment Act (2008) are not warranted.

MPRDA Regulations: The Social and Labour Plan

The MPRDA (2002) has had an impact on the mining industry, and the same can be said for its regulations. The MPRDA (2002) can be regarded as the parliamentary interpretation of the government's mineral policy. That is, parliament considered the government's mineral policy and promulgated the MPRDA (2002) to reflect the policy, while being compliant with the Constitution (1996) and other legal principles. The regulations provide the administrative actions that enable the issues in the MPRDA (2002) to be effected. The regulations cover issues such as:

- regulation of mineral and petroleum resources in Chapter 2 (MPRDA Regulations, 2004)
- environmental regulation in Part III (MPRDA Regulations, 2004)
- pollution control and waste management regulation in Part IV (MPRDA Regulations, 2004)
- Social and Labour Plan (SLP) in Part II (MPRDA Regulations, 2004).

The SLP is significant as the objectives, in Regulation 41, are to:

- promote employment and advance the social and economic welfare of all South Africans
- contribute to the transformation of the mining industry
- ensure that holders of mining rights contribute towards the socio-economic development of the areas in which they are operating (Mineral and Petroleum Resources Development Regulations, 2004).

To emphasise the importance of the SLP:

- Regulation 43 states that the SLP is valid until a closure certificate has been issued
- Regulation 45 states that an annual report on the compliance with the SLP must be submitted
- Regulation 44 states that the SLP cannot be amended without the consent of the minister (MPRDA Regulations, 2004).

In terms of Regulation 46, the SLP is a detailed document that must provide for such issues as:

- information on the mine
- a human resources development programme (a social plan for the area of operation)
- processes pertaining to downscaling and retrenchment
- financial provision to implement the SLP
- an undertaking by the holder of the mining right to ensure compliance with the SLP and to make it known to employees (MPRDA Regulations, 2004).

This is significant for communities in that they will be able to access the SLP and see whether the company is complying thereto. It also enables the communities to check whether the company is complying with legislation, such as the Employment Equity Act (1998). Should the IPs not see any compliance, then they can report the matter to the DMR. The mining right holder, in terms of Regulation 46(f), has to sign an undertaking to ensure compliance with the SLP and to inform their employees thereof (Mineral and Petroleum Resources Development Regulations, 2004). This provision renders it unnecessary for the communities concerned to depend on the normal legislative processes, such as the Promotion of Access to Information Act (2000), to obtain information on the holder's SLP. In fact, there is no provision within the SLP that precludes the dissemination of the SLPs to members of the public.

It is clear that the SLP is a legislative reflection of sustainable development practices of many a mining company. As such, in complying with the SLP, a conscientious mining company would be complying with sustainable development practices. As most sustainable development practices impact communities, SLP compliance would benefit communities as well.

Compliance with the SLPs and Charter is given earlier in this chapter.

Broad-Based Socio-Economic Empowerment Charter for the South African mining industry

The Broad-Based Socio-Economic Empowerment Charter for the South African Mining Industry (2002) (Charter) was concluded in 2002 by virtue of Section 100(2) of the MPRDA (2002), which states in paragraph 2 that: "To ensure the attainment of Government's objectives of redressing historical, social and economic inequalities as stated in the Constitution, the Minister must within six months from the date on which this Act takes effect develop a broad-based socio-economic empowerment Charter that will set the framework, targets and time-table for effecting the entry of historically disadvantaged South Africans into



the mining industry, and allow such South Africans to benefit from the exploitation of mining and mineral resources”.

“The Charter must set out, amongst others how the objects referred to in sections 2(c), (d), (e), (u) and (i) can be achieved.”

It provided for such issues as 40 % HDSA participation in management level of companies by 2009 and 10 % women participation in the industry by 2009 in Article 4.2, and 26 % black ownership by 2012 in Article 4.7. (Mining Charter, 2002)

Further, the Charter (2002) also provided for issues such as migrant labour in Article 4.3, mine community and rural development and housing and living conditions in Article 4.5, and beneficiation in Article 4.8.

The Charter (2002) is not unique as there are a few other industry charters dealing with BEE and transformation. But, as the Charter was the first of its kind in South Africa the mining industry set the tone for transformation in the country. However, Buyelwa Sonjica, the Minister of Mineral Resources at that time, was of the opinion the mining companies were attempting to “delay transformation” (Ensor, nd) and that BEE had “resulted in ‘tokenism’ rather than real empowerment” (Brown J. , 2009).

Further, there have been assertions that many companies are not adhering to transformation policies (Mthunzi, 2008). However, it would seem that the Charter (2002) is ensuring that the mining companies do not fail in these responsibilities. In this regard, it is worth noting the following comment by Mthunzi (2008): “An organisation that undermines transformation perpetuates societal inequality and economic injustice. The organisation’s espoused and practised values have to be congruent, otherwise there will be tension between the ideal and real behaviour within the organisation. Transformation should not be on the list of things to be done but in the culture and essence of running a business.”

Although these comments may reflect the present reality of doing business in South Africa, it seems to favour transformation practices for the life of the business. The Charter (2002) indicates that transformation should be temporary in nature and implications that transformation would be more permanent, by forming an integral part of the culture of the business, would certainly contradict assertions that it is redressing past imbalances.

As per Article 4.7. of the Charter (2002), a review had been scheduled for 2009, though it was only concluded in September 2010. Prior to the publication of the amendment of the Charter (2002), a Stakeholders’ Declaration on Strategy For The Sustainable Growth And Meaningful Transformation Of South Africa’s Mining Industry (nd.) (Stakeholders’ Declaration) was signed by the various stakeholders in the mining industry. (These issues are discussed in greater detail below.)

Mineral and Petroleum Resources Royalty Act 28 of 2008

The introduction of the Mineral and Petroleum Resources Royalty Act (2008) (Royalty Act) is as per Section 3(2)(b) of the MPRDA (2002), which provides for the Ministers of Minerals and Finance to consult to “determine and levy, any fee or consideration payable in terms of any relevant Act of Parliament”.

Section 2 of the Royalty Act (2008) is specific that any person who “wins or recovers a mineral resource within the Republic must pay a royalty for the benefit of the National Revenue Fund in respect of the transfer of that mineral resource.”

Basically, any person who is engaged in the extraction of a mineral or petroleum resource has to pay a royalty. For mining, this is the holders of a mining right or a mining permit. However in terms of Section 8, minerals obtained from exploration or prospecting operations are exempt from payment of royalty (Royalty Act, 2008).

The royalty, in terms of Section 3, is charged on the gross sales for the year, the calculation of which has been more clearly set out in Section 6 (Royalty Act, 2008). The formula for the calculation is set out in Section 4, with Sections 5 and 6 describing the Earnings Before Interest and Taxes and Gross Sales, respectively (Royalty Act, 2008).

Other exemptions include rollover relief for disposals involving going concerns, in Section 9, transfers involving unincorporated persons, in Section 10, arm's length transactions, in Section 11, a general avoidance rule in Section 12, and so on; with the royalty rates defined in the Schedules (Royalty Act, 2008). An issue that bears consideration is what happens when the state royalty obligations and community royalties are extinguished?

Community projects that deal with the social and welfare aspects of the area, and the communities therein, which had been financed by the mining company as part of its community royalty obligations, can conceivably also be extinguished with the state, being the recipient of the royalty, being called on to meet such obligations.

However, by paying the royalties into the National Revenue Fund, as per Section 2 (Royalty Act, 2008), the state then has the discretion to dispense the funds. This highlights another omission, the Royalty Act (2008) does not provide a dispensing mechanism in favour of the area where the mine operates or, at the least, how the revenues from the royalties are dispensed. A clear and transparent dispensing formula will enable the IPs concerned to motivate for a larger contribution from royalties paid.

These negative impacts can be erased by increasing the number of exceptions or by providing specific exemptions from state royalties for the social or sustainable development projects of the companies. Interestingly, it seems that the ANC is considering an additional tax on the mining industry in the form of a Resource Rent Tax (Davie, 2011). This seems to be another attempt to draw as much funds from the industry as possible.

Mineral and Petroleum Resources Royalty (Administration) Act 29 of 2008

This act provides for the administration for the imposition of the royalty. It covers such issues as registration in Sections 2 - 3, payments of royalties in Section 5 - 7, maintenance of the required records in Section 8, assessments in Sections 9 - 12 and refunds in Section 13 (Mineral and Petroleum Resources Royalty (Administration) Act, 2008).

Codes of Good Practice for the South African minerals industry

A relatively recent development are the Codes of Good Practice for the South African Minerals Industry (2009) (the Codes), which were published in the Government Gazette on the 29th April 2009, not long after the 22nd April presidential elections. It seems as though this was done hastily without affording the mining industry the opportunity to engage with the DMR. As Cohen (2009) stated: "Instead, days after the election, [the DME] published something called the Code of Good Practice for the South Africa Minerals



Industry, amazingly without informing the chamber or anyone else it was doing so, even though it was in discussion with the chamber at the time on the very topic.” (Cohen, 2009).

Cohen (2009) believes that the Codes are an attempt to harmonise the BEE codes of the Department of Trade and Industry (DTI) with the Charter (2002). However, the Codes (2009) state that: “The purpose of this document is to set out administrative principles to facilitate the effective implementation of the minerals and mining legislation and enhance the implementation of the Broad-Based Socio-Economic Charter applicable to the mining industry and to give effect to section 100 (1) (b) of the Mineral and Petroleum Resources Development Act, 2002 by developing a Code of Good Practice for the minerals industry in the Republic.”

While the purpose of the document does not seem to indicate anything untoward, the introduction and scope specifically states that the Codes do not replace the key legislation and laws relating to the minerals and the petroleum industry, but serve as a statement of present policy, providing an overview and confirmation of the existing mineral and mining policy that is in place. (DMR, 2009).

Article 2 provides the various elements of the Code (2009). For example, ownership is the first issue that the Codes (2009) cover extensively as to what constitutes ownership in Article 2.1.1. and the Key Measure principles for ownership in Article 2.1.3.

This section on ownership does raise concerns. The Royal Bank of Canada Capital Markets found the description around ownership “to be a possible reason for concern” (Sergeant, nd). It then deals with such “elements” as management control (Article 2.2.), employment equity (Article 2.3.), human resources development (Article 2.4.), preferential procurement Article 2.5., mine community and rural development in Article 2.6., beneficiation in Article 2.7., and housing and living conditions standard in Article 2.8. Each “element” is discussed in the format of general principles being provided and thereafter the appropriate changes to the Scorecard.

The Codes go into some detail, in Article 4, to ensure that fronting is avoided. It defines fronting as any practices or initiatives, which are in contravention of or against the spirit of any law, provision, rule, procedure, process, system, policy, practice, directive, order or any other term or condition pertaining to black economic empowerment under the Codes (The Codes, 2009).

An implementation plan to ensure transformation of the mining sector is provided in Article 3, with Article 4.1.5. sounding the warning that “Non-compliance with the Codes of Good Practice will render the entity to be in breach with the MPRDA and subjected to section 47 of the Act” (The Codes, 2009).

It should be noted that Section 47 of the MPRDA (2002) gives the Minister the authority to suspend or cancel any reconnaissance permission, prospecting right, mining right, mining permit or retention permit. This constitutes the spectrum of rights, permits and permissions that can be obtained under the provisions of the MPRDA (2002).

While there are admirable reasons for promulgating these Codes (2009), according to Cohen (2009), the DMR has chosen to enforce Section 100(1) (b) of the MPRDA (2008). It should be borne in mind that the Charter was the result of a negotiated consensus between the various players in the mining industry, and as such it constitutes an agreement. Any changes to the Charter would be a unilateral change in this agreement and should have been negotiated with the parties before implementation. Cohen (2009) quotes the Chief Executive of the Chamber of Mines of South Africa as stating that the aim of the Codes is

to clarify the Charter, not change it. To the extent that it does change the Charter, the changes are ultra vires.

While the Codes may not have been enacted in the best manner, it has not materially changed the nature of the Charter. Furthermore, it appears that the DMR has elected not to implement the Codes.

Stakeholders' Declaration On Strategy For The Sustainable Growth And Meaningful Transformation of South Africa's mining industry

As mentioned previously, the Stakeholders' Declaration On Strategy For The Sustainable Growth And Meaningful Transformation of South Africa's Mining Industry (Stakeholders' Declaration) was entered into by the various stakeholders prior to the amendment of the Charter (2002) being released.

The following stakeholders were identified:

- The DMR
- The National Union of Mineworkers
- The Chamber of Mines of South Africa
- The South African Mineral Development Association
- Solidarity
- UASA.

According to the preamble: "To ensure the sustainable growth and meaningful transformation of the mining industry, stakeholders acknowledge and commit to mitigate various constraints that are evident in infrastructure inadequacies, the paucity of requisite skills, the regulatory framework, as well as low levels of exploration and research and development. In addition, stakeholders recognise the transformation backlog in the industry, the unsatisfactory pace of which has fuelled socio-economic developmental disparities, influenced workplace inequity, and aggravated the plight of mining areas. Meaningful economic HDSA participation has also been detrimentally affected. In response, the stakeholders are committed to integrating transformation priorities with measures to promote the globally competitive growth of the sector. Having regard to the national government's order of priorities and inspired by the development potential of the mining industry, stakeholders further commit to develop the mining industry in resonance with government's socio-economic development priorities" (Stakeholders' Declaration, 2010, pp. 2).

This document consists of a series of commitments, which include infrastructure, innovation in mining, sustainable development, beneficiation, regulatory framework, human resources development, employment equity, procurement, housing and living conditions, and monitoring and evaluation.

Some of the commitments place duties on the stakeholders. For example, the commitment relating to human resources development commits them to conducting at least two skills audits by 2014 and investing in skills development activities as per set targets. The commitment to employment equity commits the stakeholders to demographic representation of HDSAs to a minimum target of 40 % in the various levels of management by 2014. The commitment to mine community development commits the stakeholders to develop guidelines and adhere to community consultation processes develop a partnership approach towards mine community development. It also commits them to consider the establishment of regional (social) development funds for effective implementation of social and labour plans implement and monitor social labour plan undertakings (Stakeholders' Declaration, 2010).



These commitments have been incorporated into the amended Charter and serve as a ‘concrete’ commitment by the stakeholders, especially the mining industry, to ensure compliance with the provisions of the amended Charter.

Amendment of the Broad-Based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry

While this document purports to be an amendment, it actually is a new stand-alone document, though it has changed many of the provisions of the Charter. The document, unlike the Charter, has a vision and mission which are to “facilitate sustainable transformation, growth and development of the mining industry” and to “give effect to section 100(2) (a) of the MPRDA and section 9 of the Constitution”, respectively (Amended Mining Charter, 2010, pp. ii).

The Amended Mining Charter introduced the additional objectives expressed in Article 1 as:

- to promote equitable access to the nation’s mineral resources to all the people of South Africa
- to substantially and meaningfully expand opportunities for HDSAs to enter the mining and minerals industry and to benefit from the exploitation of the nation’s mineral resources
- to utilise and expand the existing skills base for the empowerment of HDSAs and to serve the community
- to promote employment and advance the social and economic welfare of mine communities and major labour sending areas
- to promote beneficiation of South Africa’s mineral commodities
- to promote sustainable development and growth of the mining industry. (Amended Mining Charter, 2010).

Many of the elements contained in the Charter are retained in the Amended Mining Charter, such as the ownership requirement of 26 % HDSA participation, with offsetting permitted against beneficiation in Article 2.1. and Article 2.3. While other issues are similar, the Amended Mining Charter provides more decisive time limits:

- Article 2.4. provides for employment equity and requires a minimum 40 % HDSA participation in all levels of management ranging from executive management to junior management levels by 2014
- Article 2.5. deals with human resources development, requiring social transformation in the workplace and sustainable growth by investing a percentage of annual payroll in essential skills development, with set targets for such contributions of 3 % in 2010 to 5 % in 2014
- Article 2.7. provides for housing and living conditions, covering the conversion of hostels to family units, attaining an occupancy rate of one person per room and facilitating home ownership options for mine employees by 2014.

A significant change is the reporting of compliance with the Amended Mining Charter (2010) as per Article 2.9. This does not appear to support the previous Scorecard. It is more open and includes an obligation on the DMR to monitor and evaluate constraints to the achieving of targets.

New issues are included in:

- Article 2.6., which provides for mine community development where stakeholders commit to international best practice and mining companies agree to conduct an assessment to determine mining communities development needs and identify necessary projects
- Article 2.8., which provides for sustainable development and growth of the mining industry with emphasis on environment responsibility and health and safety.

A significant development is Article 3 which provides that non-compliance with the Charter and MPRDA renders the mining company in breach of the MPRDA, and subject to suspension or cancellation of the right or permit or guilty of an offence and subject to the set penalties. A further development is Article 4, which gives the minister the ability to amend the Charter “as and when the need arises”.

From these developments, the question arises: what would happen on the expiry of the Charter? A valued assessment is recommended that would entail an assessment of the state of the mining industry as at 2002, when the Charter became effective, compared to the state of the mining industry as at 2014. If it can be determined that there has been an improvement in the mining industry, then it can be stated that the Charter and the transformation of the mining industry has been successful.

The ANCYL Manifesto: Towards the Transfer of Mineral Wealth to the Ownership of the People as a Whole: a perspective on the nationalisation of mines

The ANCYL Nationalisation Document forms the bedrock of the ANCYL’s call for a nationalisation of the South African mining industry and fundamentally informs the debate. Although discussed before in this report, a recap is given in this section for reader convenience.

- The ANCYL Nationalisation Document (2010) states: “the understanding that nationalisation is not a be-all and end-all of economic transformation. In other words, having nationalised key parts of the economy does not automatically mean that indeed the entire wealth is in the hands of the people and that the people will benefit from such wealth ...
- nationalisation should be accompanied by thorough transformation of state-owned enterprises
- nationalisation should help build strategic capacity of the state to unlock resources for development and a growth path that is more inclusive and equitable and does not heavily rely on exportation of primary commodities and importation of almost all consumer goods and services
- nationalisation, like its opposite, privatisation, can assume various forms: it can be 100 % public ownership, or 51 % or more owned by the state, or established through partnership arrangements with the private sector in which the state assume greater control
- depending on the merits of each case based on ‘balance of evidence’, nationalisation may involve expropriation with or without compensation
- nationalisation is not meant to bail out indebted capitalists, who because of the financial crisis are losing (sic) profits due to declining consumption and demand of commodities.” (ANCYL, 2010)

The ANCYL Nationalisation Document (2010) states that the ANCYL’s call for nationalisation “is a principled one, not based on whether global commodity prices are up or down. Our call is based on strategic considerations, the need to empower the democratic state, direct the development of our economy through direct control of resource allocation to priority sectors, the need to increase the capacity of the



state to directly earn foreign exchange and to significantly stabilise the revenue side of public finances.” (ANCYL Nationalisation Document, 2010)

The ANCYL Nationalisation Document (2010) then proceeds to consider the National Democratic Revolution, the Freedom Charter, the state of the economy and poverty of South Africa and mentions Botswana as a case study. While it would seem that the document is a cursory examination of the state of South Africa and the applicability of nationalisation, it does provide an intensive analysis of the development of the Freedom Charter (1955) and various other assessments.

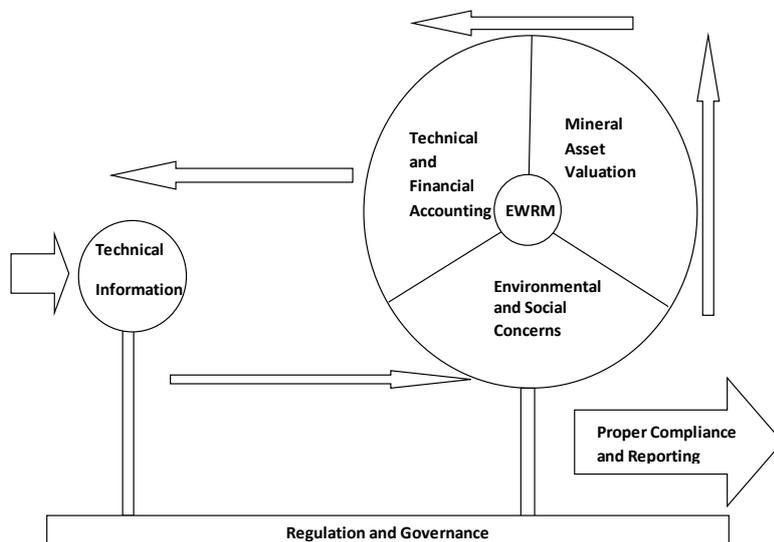
An extensive exposition of this document is not warranted here as it was most effectively been done in a study conducted by Nolutshungu (2011) who, in the preface of his publication stated: “... this study does not only analyse and evaluate the issue of nationalisation but also propounds very credible and pragmatic alternatives. These alternatives, if implemented, would allow the spirit of enterprise to explode and create a rising tide of economic opportunities. The display of courage required to implement some or all of the proposed policies will reveal the difference between the statesman of vision and the short-sighted politician. At the end of the day all that is required is the political will, followed by the stroke of the statutory pen.” (Nolutshungu, 2011)

It appears that this document serves more to inform the political rhetoric of the ANCYL than as a conclusive assessment of the issues of nationalisation.

The compliance spindle

The Compliance Spindle, as reproduced below, provides an interesting consideration as far as the legislative issues are concerned.

The Compliance Spindle



Source: (Rungan, 2010, pp. 633)

According to Rungan (2010), the Compliance Spindle commences “when *Technical Information* enters the system at the ‘small wheel’. The *Technical Information* then must pass the *Regulation and Governance* portion of the Compliance Spindle to ensure that the information is sufficient to meet these requirements.

Regulation and Governance forms the base of the Compliance Spindle without which the Compliance Spindle cannot operate and would collapse. Being the first consideration, non-compliance would render the entire operation unworkable and an inability to proceed to the other aspects of Mining Compliance and Reporting. Thereafter, the *Technical Information* goes to the bigger wheel where there is a continuous consideration of the *Technical and Financial Accounting, Mineral Asset Valuation and Environmental and Social Concerns*. At the hub of the big wheel is *Enterprise Wide Risk Management (EWRM)* which needs to be considered at all levels of operation as identified by the big wheel.” (Rungan, 2010)

From the above explanation, it is clear that with Regulation and Governance being the base of the Compliance Spindle, it must be firm and without reproach, to ensure that there is no failure in effective compliance and reporting.

Accordingly, if the regulatory regime is uncertain, then it would not be possible for a mining company to ensure effective compliance and reporting as per the requirements of the Compliance Spindle. Failure to implement the amendment of the MPRDA (2002), once it had been promulgated, and the Codes, once they had been published in the Government Gazette, negatively impacts on legal and regulatory certainty, leaving the mining companies in limbo as regards to legal requirements.

Conclusion

Although the ANCYL has submitted that nationalisation of the mining industry is a necessity, due to the provisions of the Freedom Charter, they are mistaken as the Freedom Charter requires the mineral wealth to be transferred to the ownership of the people of South Africa, and the MPRDA (2002) via Section 3, has effectively done so.

The Mining Charter (2002), and the subsequent Amended Mining Charter (2010), together with the provisions of the SLP, have effectively legislated the sustainable development practices of mining companies. The Mineral and Petroleum Resources Royalty Act (2008) has sought to ensure that South Africa derives maximum benefit from the mining industry.

A valued assessment of the mining industry comparing the state of the mining industry pre and post the Charter would reveal whether the transformation agenda of the government has been a success and whether further State intervention in the mining industry is warranted. Such an assessment would also ensure that the mining industry is not the sole party in determining a social compact post 2014, when the provisions of the Amended Mining Charter (2010) cease.

A legislative assessment highlights that regulatory certainty is an essential element to ensuring that mining companies are able to be fully compliant as per the Compliance Spindle. If there is no regulatory certainty, as occasioned by approval of an amendment to the MPRDA by parliament that is not implemented by the DMR, it is difficult for mining companies to be effectively compliant with the country’s regulatory regime.

Communities affected by mining find themselves being most vulnerable as the legislation does not adequately award them protection from and participation in the mining industry. While it is possible for communities to effectively participate in the mining industry, it would require them to invest significant time in ensuring their needs are met. Unfortunately, with state royalties being required of mining companies, it is no longer possible for them to rely on royalties from companies to facilitate such development.



Chapter 16 The economic reach of the South African mining industry: leveraging the minerals sector to enhance the economic multipliers of mining

CATALYSTS FOR DUTCH DISEASE AND RESOURCE CURSE IN EMERGING ECONOMIES

There is a close relationship between resource nationalism and the resource curse in emerging economies, South Africa included. Resource curse is by no means a purely economic mechanism, nor is it inevitable in countries which have little alternative but to rely on the exploitation of their mineral assets to emerge from the limitations of poverty.

Kernel to this assertion is that economic development (or lack thereof) and political stability in Africa is critically juxtaposed. The demise of colonialism, the fall of the Berlin Wall, and the eradication of Apartheid all occurred decades ago, which removes the convenience of these as current causalities for the economic travails of the continent. Africa's political circumstance and stability are starkly linked, both positively and negatively, with the presence and management of mineral resources and the mineral rents generated by mining activity, which must include oil and gas for the purposes of this argument.

Mineral resources endowment has an almost binary impact on African politics, much more so than in other developing environments. Countries with well managed mineral-based economies are stable and strong, while those with kleptocratic and corrupt governments tend to fail. If one considers the more stable political economies of the continent, these are virtually all countries with established or developing mineral-based economies. Such countries would include South Africa, Botswana, Namibia, Tanzania, Mozambique, Zambia, Nigeria and Ghana.

By the same token, a large percentage of fragile states and failed economies in Africa also have mineral-based economies. Angola, Sierra Leone, the DRC, Cote d'Ivoire, Equatorial Guinea and now Libya are all testament to this phenomenon. The causes of failure are often related to the resource-curse or Dutch Disease syndrome and may not necessarily be associated with civil war. The resource curse is perhaps the most important explanation (for the failure of states). (Di John, 2011).

This said, whichever of the two models is used to describe the failed states, invariably political patrimony is founded on access to the economic rents generated by the extractive industries. Companies active in these sectors cannot completely absolve themselves of the responsibility for this ease of access.

Corrupt misuse of rents generated by a country's mineral resource endowment for personal and political benefit is commonplace. As this often occurs with the active or tacit compliance of the large and well-known multinational companies granted the right to the exploitation of these resources, the credibility of the sector is legitimately open to question. The undeniable role that the extractive industry companies have played in accommodating rent-seeking activities among the political leaders of Africa's minerals endowed fragile states has led to the establishment of imperatives such as the Extractive Industries Transparency Initiative (EITI) and the World Economic Forum Partnership Against Corruption Initiative (PACI), which seek to combat these practices. Subscription to these imperatives by companies is low and

even lower by host governments. There are only five African countries⁵⁴ that are compliant with the EITI requirements and 20 mining companies⁵⁵ that operate in Africa that are signatories.

The causes of economic, political and social failure in Africa are complex. It is sufficient for the purposes of this discussion to accept that, while minerals have been the root cause of much of Africa's economic and political failure and its resultant suffering, responsibly managed mining and behaviour of the mining companies active in these volatile political environments have the capacity to assist in reversing this malaise.

With a few exceptions such as China, economic development and political freedom are closely linked. Political freedom relies on the political restraint (accountability) of a country's leadership by its people and, within this context, political restraints tend to be imposed by people enjoying a higher level of per capita income (Sen, 1999). Economic development induces healthy institutional change (*ibid*) and strong institutions underpin a stable political economy. The extractive industries provide the impetus for this higher per capita income.

INDUSTRIALISATION AND ECONOMIC DIVERSIFICATION AROUND MINING

The issue of industrialisation around mining is an important one and is a key focus of both the ANCYL nationalisation manifesto and the SIMS report. It is important to appreciate that the modern South African economy is probably the best international example of the multiplier effects of mining over an extended period of time. South Africa has a strong and highly diversified economy that was founded on diamond and gold mining over the last 150 years (the establishment of copper mining in Namaqualand in the 1850's contributed little to the South African economy).

While the focus on industrialisation is important, it is questionable as to the extent that the South African economy can be further diversified by leveraging the existing mining industry. In the context of the economic multipliers that are derived from mining related industrialisation in the secondary and tertiary sectors, unfortunately the economic impact of the development of new mines is likely to be offset by a decline in the gold and other mature sectors of the industry. The nature and extent of the existing economic reach of mines in South Africa is not well understood and badly underestimated. The appreciation of economic impact seems to be centred on the macro-economic factors such as employment, fiscal contribution and contributions to GDP, exports and balance of payments. On a more parochial level, there is a significant statutory focus on local mine community development. The socio-economic reach of mines into the industrialised urban areas such as Gauteng and the labour sending areas of the Eastern Cape are seldom taken into consideration.

This section will deal with these aspects and unpack a range of examples to demonstrate these economic mechanisms empirically.

While South Africa has a highly diversified economy premised on historical mining activity, this is not the case with most other mining countries in Africa. In this sense, South Africa's example of economic diversification is critically important to economic planning in developing mining economies. In these countries, more often than not, mining projects are remote and in areas where there is little or no

⁵⁴ Niger, Central African Republic, Nigeria, Ghana, Liberia

⁵⁵ African Rainbow Minerals (ARM), Anglo American, AngloGold Ashanti, Anvil Mining, Arcelor Mittal, AREVA, Barrick Gold Corporation, BHP Billiton, De Beers, Dundee Precious Metals, Gold Fields, Goldcorp, Kinross, Lonmin, Newmont, Oxus Gold, Rio Tinto, Vale, Xstrata



appropriate infrastructure. In these situations, the establishment of a mining project establishes local physical, social, commercial and industrial infrastructure, as well as primary economic activity and wealth creation. Very simply put, this provides the enabling environment for other forms of primary, secondary and tertiary activity to develop. However, these activities do not spontaneously arise, they need to be planned for, and it is this government inter-departmental and inter-disciplinary planning that is referred to in the SIMS report and that motivates the call for an economic “super-ministry”.

South Africa’s strong currency by early 2012 is strongly influenced by the country’s mineral exports. The economic difficulty here is that while the industry is largely domestically self-sufficient in terms of the manufacture and supply of intermediate goods and services into the mining sector, the competitive export of these same products to other mining countries is compromised, as are other non-mining tradable products and commodities. The economic planning focus should therefore be more on how one deals with this conundrum rather than on potentially futile efforts to further diversify the country’s economy on the back of the mining sector.

The other area of focus needs to be on the extent to which the mining industry can be used to support non-mining primary, secondary and tertiary industries. This is in fact dealt with in the SIMS report in its proposals that under-utilised mining infrastructure should be made available on reasonable (non-exploitative) economic terms to other sectors. While this idea is in principle attractive, in practice it can only apply in instances where there are natural synergies between mining infrastructure and other economic activities. The South African landscape is littered with the relics of the Apartheid government’s attempts under its Bantustan policy to create economic activity in remote areas where it had no natural, logistic or logical reason to exist. Another good example of this is the Botswana government’s largely failed efforts to diversify the economy of Selebi Phikwe through government grants and concessions for non-mining companies to establish businesses there. Once the grants had run their stipulated term, the business simply moved out to more economically appropriate locations.

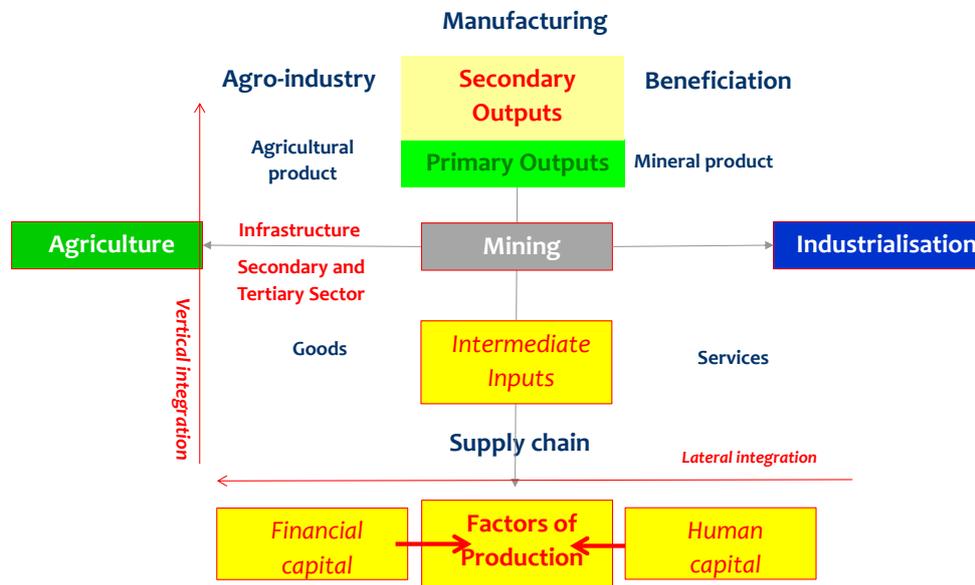
While it is difficult to “re-tread” old mining infrastructure, the focus of this effort to economically enhance the use of mining infrastructure needs to be a function of the planning of new mining projects where these natural, logistic or logical synergies can be established before the infrastructure is developed. The diversification planning of this infrastructure can then be built in to the mining development plan if, and where it is possible, appropriate, and economically viable for both the mine and the alternative enterprise.

The nature of such planning needs to take into consideration that economic diversification is fundamentally premised on competitively tradable manufactured goods. All manufactured goods are made from products that are either mined or grown. Those primary commodities that are grown are fed and processed using mined products. The SIMS document recognises this in its classification of strategic commodities and super-ministry concept, but puts too much onus on the mining industry to look for these non-mining synergies. For the proposed industrialisation strategy to succeed, there have to be more creative incentives for mining companies to consider participation in these integrated planning processes. By simply making such strategies a pre-requisite for mining licences, it will not succeed. The framework for such integrated planning that needs to encompass both the current rigid focus on vertical integration, and also lateral planning into the agro-industry sector and non-mining related manufacture. This framework is shown in the diagram below.

In the context of the South African government’s ambitions to become a developmental state, it is the prerogative of government to take the lead in these imperatives and to incentivise rather than force the

mining industry's participation. This could be achieved by government co-funding of diversified mining infrastructure and other fiscal incentives to mining companies to engage in broader economic strategies.

Lateral and vertical integrated industrialisation around mining activity



UNDERSTANDING THE ECONOMIC MULTIPLIERS OF MINING

Mining companies can and do influence economic impact in the manner in which they conduct their operations. CSI is one level of interface between a mining company and its host communities. The problem with CSI is that it is totally reliant on the continued operation of mining activities and contributes little to the economic sustainability of mining activity. This sustainability is a function of the level of economic integration that is achieved during mining operations and its effectiveness in catalysing other forms of economic development. Integration expedites the metamorphosis from mining to the level of economic diversification that defines an economy in transition.

The traditional vertical backward and forward linkages of mining are well understood. However, it is the lateral integration of mining economies into the catalysation (through the diversification planning for infrastructure and supply chain) of unrelated primary economic arenas that should be the next field of endeavour for development economists.

To better understand the possibilities for greater economic leverage from mining, data from mining operations juxtaposed with government statistical data can be used to map the demography of impact (local and remote communities affected by the establishment of a mine). This data provides real and useful measures of the macro-economic, socio-economic and environmental dimensions of mining at various levels of society and the economy.



MINING AND ECONOMIC MULTIPLIERS: EXAMPLES FROM SOUTH AFRICA AND BOTSWANA

The modern economy of South Africa is founded on mining, which commenced at a large scale with the development of copper in Namaqualand in 1851. Because of the remoteness of Springbok and the proximity of the workings to Port Nolloth, the copper industry did nothing to foster economic development in South Africa. Intermediate inputs arrived by sea from Britain and the copper product went back on the return voyages. It was the discovery of diamonds in Kimberley in 1867 that kick-started the modern South African economy. The building of railway lines between Cape Town and Kimberley, and Kimberley and Port Elizabeth, to provide supply lines for mining equipment and comestibles from Britain to the diamond fields, opened up the interior of the country. The railway lines provided the agrarian Boers who had fled British government in the 1830s with the opportunity to establish a viable commercial agricultural sector, supplying both the mines and the port cities. This was the country's first incidence of import substitution.

The discovery of gold in Johannesburg in 1885 provided the next economic impetus to the country's development. In Kimberley, the consolidation of the artisanal workings of diamond fields⁵⁶ had left the control of the now large diamond mines in the hands of a few individuals who used this capital for the development of the gold mines. The short extension of the Cape railway line to Johannesburg accelerated the development of the mines, which relied initially, like Kimberley, on the supply of mining equipment and intermediate inputs from Britain. As the gold mining industry grew and supply lines rapidly became cumbersome and uneconomic, the establishment of the first substantial secondary and tertiary sectors occurred in close proximity to Johannesburg. This comprised the second critical phases of import substitution and the start of the diversification and industrialisation of the modern South African economy, which has resulted in the powerful mineral economic complex that it is today (Fine, 1996).

It is important in the context of mining-related economic diversification that the financing from the early secondary and tertiary sectors was sourced predominantly from the mining companies or the so-called Randlords in their personal capacities. The six larger mining companies⁵⁷ all became diversified investment houses. At the time of political transition in the early 1990's, these companies literally owned some 70 % of the formal sector economy through their shareholdings in businesses across the economic spectrum.

Because of more than a century of mining-catalysed economic diversification, South Africa is at a very different economic point in its social and economic history to that of countries such as Tanzania, Ghana, Mozambique and Mali. Macro-economically, South Africa now has to plan for and economically accommodate the downscaling of its mining industry, rather than its development. However, the lessons South Africa has learned from the socio-economic and environmental distress caused by mine closure and the manner in which the country is attempting to deal with the issues, are relevant to other sub-Saharan African countries. These countries not only need to take South Africa's lead in economic diversification, but need to plan for their respective industries' ultimate demise.

Botswana

In this respect, Botswana is arguably the best example in the world. A mining dominated economy, it has risen from being one of the globe's poorest countries in 1970, to being one of the most rapidly developing

⁵⁶ The workings got too deep for individual claim holders to operate safely and viably.

⁵⁷ Anglo American, Rand Mines, Anglo Vaal, JCI, Gold Fields and Gencor.

and best respected economies in Africa. Still a transition economy, it has focused its efforts on trying to diversify its economy away from its dependence on diamonds.

At a macro-economic level, Botswana exports are totally dominated by the mineral sector, in particular diamonds. This dominance underlines the need for Botswana to continue to attract investment in exploration and to create an attractive environment for the mining industry. However, there is also a strong need to diversify to reduce the vulnerability to unpredictable changes in the international markets of the commodities that Botswana produces.

Botswana's success does not lie only in the effectiveness of the country's mining code, but in the economic planning around the mining industry. As an example, Botswana and Tanzania both have economic development visions ("Long Term Vision for Botswana – Towards Prosperity for All" and "Vision 2025" respectively) but very different economic planning frameworks. Botswana's "Long Term Vision" and the National Development Plan 10 are well structured documents, demonstrating a very good understanding of what resources are available for economic growth and how they are to be mustered.

Consistent with the imperative to leverage mining rents for economic diversification, the 10th Botswana National Development Plan (NDP 10) (Botswana Ministry of Finance and Development Planning, 2007) creates an excellent example of planning for the constructive use of mining rents to promote diversification. By stark contrast, mining has one obscure reference in the Tanzanian Vision 2025 statement, and is not mentioned at all in the country's poverty reduction strategy.

For many years, the main thrust of economic policy in Botswana has been to diversify the economy, to reduce dependence on the mining sector in general, and diamonds in particular. The NDP9 and 10 focus on import substitution as well as the development of new exports, of both goods and services.

A further reason for diversification is that, in relation to the overall Botswana population, the mining sector (particularly the highly mechanised diamond industry) employs relatively few people. The rest of the economy is much more employment-intensive, providing both formal sector jobs and support for the informal sector, which accounts for 33 % of the country's GDP (Schneider, 2004).

Botswana has already achieved considerable success with its economic diversification programme. Copper-nickel mining in the Selebi-Phikwe/Francistown area preceded the mining of diamonds in the 1970s, prior to which the Botswana economy depended heavily on exports of beef, and wage remittances of migrant labour working on the South African mines. The rents from diamond mining, in particular have, been used to build infrastructure, and provide wide-scale education and training of the Matswana people, an important underpin for the country's diversification plan.

The National Development Plan 10 maps out the short, medium and long term integrated development plan for the country, upon which the government is not only expected to deliver, but has the political will and the financial resources to do so. The most important lesson to be drawn from Botswana, therefore, is the structured approach that it has taken to managing the country's mineral sector, and the clear appreciation of the macro- and socio-economic roles that the industry plays. Ever cognisant of the longer term concerns around the viability of the diamond industry, the need to reduce the country's dependence on diamonds is a national economic priority. This is seen in the long-term vision for Botswana expressed in an early document 'Towards Prosperity for All' (Botswana Presidential Task Group, 1997), which succinctly identifies the critical areas earmarked for diversification.



An excellent illustration of the economic multipliers of mining in Botswana emerged from a Sysmin study on the Bamangwato Concessions Limited (BCL) copper nickel mine, Selebi-Phikwe. The study was undertaken in 2001 by the Raw Materials Group in Sweden to assist the Botswana government in deciding whether it should continue the approximately 50 million Pula (US\$7,2 million) a year subsidy to keep this loss-making mine operational.

Selebi-Phikwe is a mining town located in the Central District of Botswana. At the time of the Sysmin study in 2001, the town had a population of 49 849 (Wikipidea). Nickel mining commenced at BCL in 1973 and has been the primary economic activity since that time. The mining industrial complex includes a mine and a smelter. All operations are now deep level underground mining.

Importantly, the mine has never been commercially successful and, as there is no other significant economic activity in the area, it is essentially an island economy. It therefore makes an excellent case study in assessing economic multipliers.

At the most simplistic level, the employment multipliers are instructive. Starting from no local population whatsoever in 1971, Selebi-Phikwe now has a population of 52 000 people.

Mining employment multipliers in Selebi-Phikwe, Botswana

	Population	% Inc	Formal Sector Employment			Multiplier
			Mining	% Inc	Other	
1965	-	-		-	-	-
1971	5259	-	3 058	-	-	-
1975	20522 ▲	290%	3 144 ▲	3%	6683 ▲	2.13
1981	29469 ▲	44%	4 308 ▲	37%	10113 ▲	2.35
1991	39772 ▲	35%	5 451 ▲	27%	15568 ▲	2.86
1997	49849 ▲	25%	4 925 ▲	-10%	17830 ▲	3.62

The importance of the above table lies in the calculation of the employment multipliers of 3,62 jobs in the local secondary and tertiary industry for every job on the BCL mine, the town's sole economic anchor tenant. These ratios are often very difficult to determine as it is seldom that one has a remote mine that has existed for more than four decades and still has a clearly minerals-based economy.

National economic contribution of BCL Limited, Botswana

	Spend	Spread
National	€ 26.48 ▲	64.1%
Parastatals	€ 17.51 ▲	42.4%
Government	€ 0.28 ▲	0.7%
Other	€ 8.69 ▲	21.0%
Regional	€ 3.48 ▲	8.4%
Local	€ 10.81 ▲	26.2%
Total inflows into the National Economy	€ 40.77 ▲	98.6%
Remittances to Foreign companies	€ 0.56 ▲	1.4%
Total spending on goods and services	€ 41.33 ▲	100.0%

The report preceded an economic flow exercise undertaken on a large South African precious metals mine described later in this paper, but used exactly the same methodology. It showed that even as a non-profit-

making mine, BCL contributed Euros41,33 million (US\$58 million in current terms) to the Botswana economy, a substantial surplus on the US\$7 million subsidy at the time the study was undertaken. Economically, it is an extremely important and almost unique example for governments of the importance of mining activity, even when it is marginal.

The final area of interest is the cross-sectoral impact of BCL as shown below. This is considerably less complex than that of the precious metals mine discussed in the next case study, signifying a far lower level of economic diversification in Botswana. The spread of benefit from the South African mine is geographically and sectorally much more complex and has greater impact than the Botswana example.

ASSESSING THE IMPACT OF THE MINING ECONOMY INTO THE BROADER ECONOMY

Mapping the economic flows from the mine into the surrounding economy both geographically and inter-sectorally highlights the relationship between a mine and its host economy. This is a vital planning tool, not only for mining companies and governments to appreciate the full benefit from a new mining project or cluster, but also to assess the socio-economic and macro-economic impact of closure of a mine or waning of a cluster.

In mapping these impacts, the underlying precepts directing any diversification strategy are tested against what is achievable and what is not. For example, a mine's Social and Labour plans may target 10 % of their expenditure for local procurement, while the mapping of existing comparative operations could indicate that this is unachievable.

Cross sectoral spread of BCL expenditure on goods and services

Economic Sector	Total	Local	Regional	National	Foreign	Sectoral Spread
Agriculture	€ 0.00	€ 0.00	€ 0.00	€ 0.00	€ 0.00	0.0%
Banks, Insurance & Business Services	€ 0.90	€ 0.04	€ 0.01	€ 0.85	€ 0.00	2.2%
Construction	€ 2.24	€ 1.60	€ 0.43	€ 0.07	€ 0.14	5.4%
General Government	€ 0.54	€ 0.00	€ 0.00	€ 0.54	€ 0.00	1.3%
Manufacturing	€ 0.62	€ 0.08	€ 0.06	€ 0.16	€ 0.32	1.5%
Mining	€ 7.55	€ 4.77	€ 2.47	€ 0.31	€ 0.00	18.3%
Social and Personal Services	€ 0.11	€ 0.00	€ 0.00	€ 0.11	€ 0.00	0.3%
Trade, Hotel and Restaurants	€ 6.15	€ 1.11	€ 0.23	€ 4.71	€ 0.10	14.9%
Transport	€ 5.88	€ 3.20	€ 0.21	€ 2.47	€ 0.00	14.2%
Water and electricity	€ 17.34	€ 0.00	€ 0.06	€ 17.28	€ 0.00	42.0%
Total expenditure on goods and services	€ 41.33	€ 10.80	€ 3.47	€ 26.50	€ 0.56	100.0%
<i>% Geographic spread</i>		<i>26.1%</i>	<i>8.4%</i>	<i>64.1%</i>	<i>1.4%</i>	

The detailed analysis of the economic impact that a single precious metals mine in South Africa has on the various levels of the economy also looked at the mine's economic impact on its various labour sending areas.

The mine modelled is a large, precious metal, narrow reef underground operation in the North West Province of South Africa, producing 7,5 million tonnes of run-of-mine ore per annum, yielding 700 000 ounces of metal. The mine employed 9 318 people at the time of the economic evaluation.



The exercise constituted an analysis of 41 784 procurement transactions that were categorised by:

- origin of manufacture of goods
- home office of services provided (to assess commissions or margins taken by local or regional branch offices or agencies)
- Standard Industry Codes (SIC categories) to assess cross sectoral benefits.

A comprehensive analysis of 5 996 employee personnel records was undertaken to establish:

- net earnings
- discretionary incomes
- labour sending area
- local families vs rural family commitments
- level of dependencies
- years of service.

A survey of mineworkers spending profiles assessed:

- level of wage remittances split to rural families
- percentage of wage packet spent in areas and on urban families local to mine site ⁵⁸
- split of the wage packet on food, shelter, discretionary purchases and services.

As with the mine's procurement analysis, a rough estimate was undertaken as to the routing of various disbursements from wage packages from retailers through to agents and head offices of the principal vendor (for example, cell phone expenditure would have been sold locally, through an agent in a local centre and the principal vendor, the cell phone service provider, in Johannesburg).

This demographic and geographic distribution of mine expenditure between procurement and wages was juxtaposed to obtain a profile of total economic impact and split into five broad categories:

- salaries and wages
- procurement
- fiscal flows
- royalties
- socio-economic development.

Fiscal flows included corporate taxation and personal income taxes of employees, which were subtracted from the salaries and wages line. The salaries and wages reflected are effectively 'take-home' pay or discretionary spending amounts.

The aggregated results of the demography of both procurement spend and wage disbursements are summarised in the tables below. What is notable here is that some 70 % of the mine's expenditure finds its way to the industrial, financial services and corporate administrative districts in Gauteng. The tables put in

⁵⁸ A large proportion of migrant mineworkers who had lengthy records of service had established local families in addition to their families in the rural labour sending areas

perspective the difficulties associated with truly local expenditure. Ultimately, the bulk of the wage packet reports to the central economic areas as well.

Breakdown of economic flows by geographic area

In developing an economic integration strategy, it is crucially important to understand the ultimate geographic destination of the disbursements through procurement or wage earnings, as well as the sectors in those areas that can be expected to benefit from this expenditure by mines. The results reflected represent the area local to the mine and regional to the mine in question, and provide a cross-sectoral profile of economic benefit. This has a heavy bias towards the wholesale and retail sector and (one assumes) local business and engineering services.

Despite the popular focus being on local development, the tables demonstrate that, realistically, only around 5 % of the expenditure remains in the area local to the mine and a further 20 % resides regionally. These are important rules of thumb for mine management and project planners when negotiating with government on Social and Labour Plans in the case of South Africa or Mineral Development Agreements in other mining regimes in sub-Saharan Africa.

The following table schedules the direct and indirect benefit on geographic basis of mining activity based on an extensive analysis of salary, procurement, fiscal flows and consumer spending patterns using a large database assembled from a number of large platinum mining companies.

Geographic reach of platinum mining activity in South Africa

Geographic Reach	National	Limpopo	North West	Mpumalanga	Gauteng	Eastern Cape	KwaZulu Natal	Northern Cape	Western Cape	Free State	SADC	Unknown
Salaries and Wages (After Tax)	38.3%	10.8%	11.1%	0.5%	2.8%	6.8%	0.1%	0.2%	0.0%	1.2%	4.7%	-
Procurement	60.4%	2.0%	6.6%	0.0%	48.6%	-	0.1%	-	0.0%	0.4%	-	2.6%
Royalties (Private)	1.0%	-	1.0%	-	-	-	-	-	-	-	-	-
Socio-economic Development	0.2%	0.2%	-	-	-	-	-	-	-	-	-	-
Total ZARm excluding fiscal flows	60.6%	13.0%	18.8%	0.5%	51.4%	6.8%	0.3%	0.2%	0.0%	1.6%	4.7%	2.6%
Flows to Govt as a % of economic benefit	39.4%	4.7%	2.6%	3.1%	7.3%	5.7%	8.3%	1.1%	4.0%	2.5%	-	-
Total ZARm including fiscal flows	100.0%	12.6%	14.1%	3.5%	38.5%	9.8%	8.5%	1.2%	4.0%	3.5%	2.9%	1.6%

The results are summarised in the next table. This table shows that the bulk of the direct benefit from platinum mining (52 %) goes to the industrial centres where the secondary and tertiary industries are located, while the areas local to the mining operations derive 33,7 % of direct benefit. The labour sending areas derive only 10% of the total benefit of mining. However, it must be taken into consideration here that the total flow to central government amounts to 40,5 % of total economic benefit. This includes the costs of government provided infrastructure such as electricity and water.



Summary of geographic reach

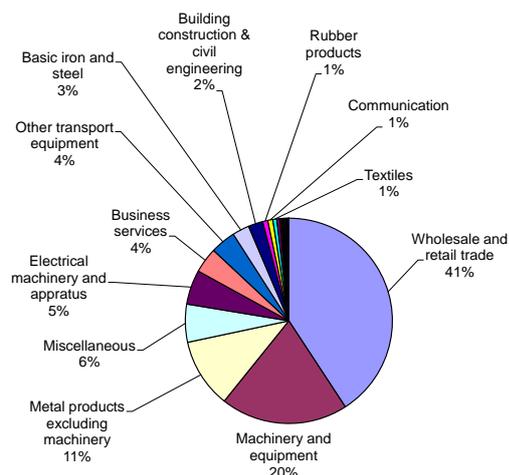
Geographic Distribution of Benefit from Platinum Mining in South Africa	Direct Benefit	Including Fiscal Flows
Platinum mining provinces	33.7%	30.9%
Labour sending provinces	10.0%	11.8%
Gauteng Industrial Complex	52.0%	38.4%
Other areas	4.3%	18.9%
Flows to Govt as a % of economic benefit	40.5%	

If one includes the redistribution of fiscal flows to central government through the provincial allocations the picture changes somewhat. The relative share of benefit from the mining areas falls to 30,9 %, the industrial centres to 38,4 %, labour sending areas rise to 11,8 % and other areas to 18,9 %. What these table show quite clearly is that the benefit of mining is in fact not restricted to the mining areas themselves, but that 70 % of the benefit flows to the rest of the country.

CROSS SECTORAL SPREAD OF BENEFIT

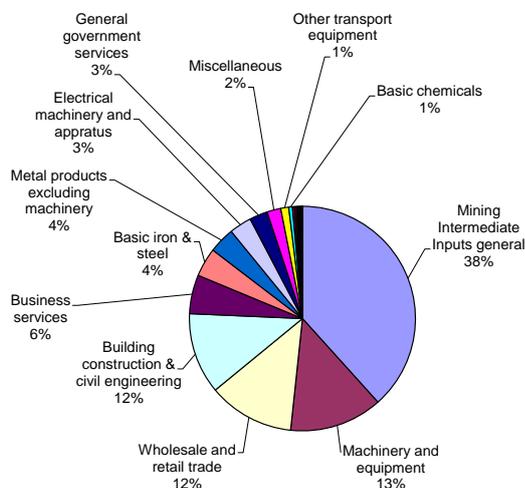
As with the Botswana example from mining in Selebi Phikwe, it is instructive in understanding the cross-sectoral nature of benefit derived from platinum mining. The analysis undertaken provided for a cross-sectoral evaluation by geographic region (municipal and provincial). The results of this show quite logically that economic benefit at a local level (considered to be within 50 km of the mine site) tends to be concentrated on retail, wholesale and small engineering and service industries, while in the industrial areas the benefit is more biased towards heavy engineering, technical services and manufactured intermediate inputs.

Cross sectoral impact of a large precious metals mine: local and regional (North West Province)



By contrast, in the analysis of beneficiaries in the central business and industrial areas of Gauteng (Johannesburg, Sandton, Pretoria, and the East and West Rand), there is a strong bias towards mining intermediate inputs and large scale civil and engineering contractors.

Cross sectoral impact of a large precious metals mine: industrial centre (Gauteng)



MINE WAGES AND LIVELIHOOD DEPENDENCIES ON MINeworkERS IN SOUTH AFRICA

In a country burdened by immense unemployment, those who are employed often support large families. The age dependency ratio (percent of working-age population) in South Africa was reported at 54,15 in 2008, according to the World Bank. There are approximately 13,4 million people employed people in South Africa, out of a population of 50 million. The mining sector employs roughly 325 000 people, with the number of jobs in the mining sector increasing by 14,9 % in the final quarter of 2011, the largest quarter-to-quarter increase recorded by any sector.

Despite efforts by the mining sector to reduce unemployment, there is a general perception that many communities located near mines derive very limited benefits from mining activities taking place in their regions. Consequently, many local communities actively seek greater economic benefits from mining companies. This has contributed to the call for the nationalisation of mines, which stems from a perception that once mines are state-owned, local mining communities will derive greater benefits.

DEMOGRAPHY

The mining industry is traditionally a male dominated industry. From the project sample 90 % were male. Some 91 % of the sample were African, 8 % white, with Indian and coloured people comprising the balance. Setswana is the predominant local language followed by isiXhosa as Eastern Cape is the major migrant labour sending area for the sector.



The various labour sending areas in South Africa and the SADC region for a large precious metals mine

Province	
Eastern Cape	22,90 %
Free State	2,00 %
Gauteng	1,70 %
Kwa-Zulu Natal	0,40 %
Limpopo	18,90 %
Mpumalanga	1,10 %
Northern Cape	0,40 %
North West	42,30 %
Western Cape	0,00 %
SADC	7,80 %
Unidentified	2,40 %

SADC	
Botswana	7,53 %
Lesotho	33,76 %
Malawi	0,05 %
Mozambique	27,18 %
Namibia	0,02 %
Swaziland	8,38 %
Other	23,08 %
	100,00 %

Some 42 %, are from the North West province, with the biggest local labour sending municipality being the Rustenburg followed by Moses Kotane just over 40 km outside Rustenburg. About 23 % of the employees come from the Eastern Cape, with the majority of these coming from the King Sabata Dalindyebo municipality. The third highest labour sending province was the Limpopo province, which accounted for approximately 19 % of the work force, with the bulk of the employees coming from Thabazimbi.

AGE PROFILE

The age profile indicates that the average age of mineworkers is approximately 40 years with most of the employees in these mines are between the ages of 31 and 50.

Age profile of mineworkers studied

Age Group	Proportion
18-20	0,44 %
21-30	18,70 %
31-40	28,12 %
41-50	34,61 %
51-60	17,10 %
60-65	1,01 %
65≤	0,01 %
	100,00 %

Years of service

Years of Service	Employees	%
0-5	14 437	36 %
5-10	7 103	18 %
10-15	5 134	13 %
15-20	9 381	24 %
21-25	2 716	7 %
26-30	767	2 %
>31	95	0 %
	39 633	100 %

As can be seen from the above table, most of the employees have been working for the mines for five years or less. As the numbers of years increase, the number of employees starts to diminish.

Dependency ratios of mineworkers on a large South African precious metals mine

	Urban Peri-urban	Rural Labour sending areas	Totals
Mineworkers*	4597	1399	5996
Urban Rural Split	76.7%	23.3%	100.0%
Average dependencies in labour sending areas**	4.7	17.3	7.64

*Employees aggregated from the primary labour sending areas for the mine in question

**Statistics SA Census 2000 data

These include the effects of formal sector economic activity catalysed by mining into the informal sector. The informal economy in South Africa is 28 % of the total GDP (Schneider, 2004) and according to South African labour statistics (Statistics South Africa, 2008) the ratio of formal to informal sector employment is 2,7 to one.

Empirical livelihood support for every 1 000 workers in a highly diversified mining economy

Labour Sending Area	Urban/Peri-urban	Rural
	75%	25%
Mineworkers	1000	250
Dependencies	4.5	17.5
Secondary and Tertiary Sector Workers	2.5	2500
Dependencies		11250
Total indicative formal sector livelihoods	22500	
Informal sector breadwinners reliant on mining wage	0.5	125
Dependents on informal sector workers	1687.5	2187.5
Informal sector livelihoods	4375	2312.5
Total livelihoods supported/1000 mineworkers	26875	

*This includes the primary, secondary and tertiary sector wage earners and their dependents

** Schneider, 2004



If one assumes for the purposes of this argument that there is only one breadwinner in the informal sector for every two mining jobs, i.e. 20 % of the official ratio, the above estimate of 27 000 formal and informal sector livelihoods is probably conservative. As South Africa, as a diversified mining economy, has a higher ratio of formal sector breadwinners to that of less diversified mining economies such as Ghana (41,9 %), Zambia (48,9 %) and Tanzania (58,3 %) (Schneider, 2004), this implies that the less diversified economies have a higher reliance on the lower-paying and less secure but larger informal sectors.

CONCLUSION

Unless active planning around the extended economic reach of mining activity is properly planned by government in cooperation with mining companies and other appropriate private sector enterprises that could benefit in one way or another from mining, whether directly or indirectly, it will not happen optimally. The importance of this mining-related industrialisation and extended economic benefit through leveraging mining activity and its associated infrastructure and enabling facilitation is recognised by the SIMS report. It addresses many of the appropriate factors in its discussion education, training, knowledge base/research and development, infrastructure and special economic zones. However, in order for these plans to be successful, state intervention needs to go well beyond policy and more towards developmental participation by the state in materially assisting, facilitating and incentivising mining-related secondary and tertiary activity as well as managing the through flow of this activity into other ostensibly unrelated sectors.

Apart from the geographic and cross-sectoral spread of the economics of the benefit derived from the industry there is one important factor that needs to be clearly understood. The number of jobs created or lost is well documented statistically and easier to analyse. However many livelihood mining activity supports more difficult to estimate. The figures presented in this section suggest that conservatively every 1000 on-mine jobs supports 27 000 livelihoods. There are probably as many people supported in the informal sector. Since the transition in government in 1994, South Africa has lost some 300 000 jobs in the mining sector. This implies that some 8 million livelihoods have been affected by the downscaling of the sector and translates to some 18% of the country's population having been affected in some form or another by this contraction in mining activity. Given the limitations on the net expansion of the industry, further contraction of the industry as a result of poor policy will have serious social, economic and hence political repercussions. The call for nationalisations is symptomatic of this happening already.

The state has to engage with mining companies in an interest based discussion on how best to optimise the economic impact of the mining industry in South Africa, this, failing which these imperatives are unlikely to succeed.

Chapter 17 Enhancing economically viable beneficiation in the South African mining sector

Despite being in the unique position of hosting some of the richest mineral deposits in the world, South Africa continues to be plagued by high levels of income inequality, unemployment, skills shortages and a relatively narrow and low-valued export basket (National Planning Commission, 2011) and (DBSA, 2011). Although the South African economy has grown by around 3,3 % over the past decade, growth has been comparatively lower than that in other emerging economies, most notably the BRIC countries (Brazil, Russia, India and China), where GDP growth averaged 10,8 % (Moghadam, 2011). Growth has mainly been concentrated in an expansion of the services sector, while the primary and secondary sectors have contracted.

In the mining sector, growth decreased by around 1 % over the period 2003-2008 (Baxter, 2011) and (DBSA, 2011). The past decade, particularly in the minerals sector, has however seen numerous legislative changes aimed specifically at unlocking latent potential, transforming the industry and attracting new investors. On the back of such proactivity and responsiveness by the government to foster growth in the economy, the question arises as to why the mining sector has not performed as expected, whether the sector has the potential to meet the government's expectations in terms of increased extraction and beneficiation, and what interventions are needed to unlock latent opportunities.

This section explores possibilities for enhancing economically viable beneficiation in the South African minerals sector. The objective is to look at the potential for further beneficiation than is currently being undertaken, focusing specifically on the commodities used in the five value chains prioritised by government – iron and steel making (iron ore, chrome, manganese, nickel and vanadium), jewellery fabrication (platinum, gold and diamonds), titanium and pigment production (titanium), energy production (uranium and coal), and autocatalyst and diesel particulate filter manufacture (platinum). Additional opportunities for the further maximisation of the sector are also covered, together with the interventions needed to unlock critical bottlenecks, particularly with regard to infrastructure capacity, markets and industry incentives.

SOUTH AFRICA'S COMPARATIVE ADVANTAGES IN THE GLOBAL MINERAL SECTOR

The mining industry has been the cornerstone of economic development in South Africa for over a century and is expected to remain a key sector going forward. South Africa has the fifth largest minerals industry in the world, after that of China, USA, Australia and Brazil, and one of the richest in terms of in-situ mineral resources which are estimated at around US\$2,5 trillion, with more than a century remaining in terms of exploitable life (DMR, 2010) and (Baxter, 2011).

“Mining provides critical feedstocks into the following labour-absorbing strategic sectors of our economy:

- Minerals for Manufacturing: steel (iron ore), polymers (coal or oil/gas), base metals (copper, zinc, nickel and others);
- Minerals for Energy: coal, gas, uranium (also limestone for washing emissions);
- Minerals for Agriculture: NPK- nitrogen (gas), phosphates, potassium, conditioners (sulphur, limestone);
- Minerals for Infrastructure: Steel (iron ore), cement (limestone, coal, gypsum), copper.
- Producer Power: In addition, SA's share of some resources offers possible producer power which could be used to facilitate backward and forward mineral economic linkages: PGMs and, possibly, chromium, vanadium, manganese, alumina-silicates.”
(SIMS, 2012)



The sector spans the full spectrum of the five major mineral categories namely precious metals and minerals, energy minerals, non-ferrous metals and minerals, ferrous minerals and industrial minerals. South Africa dominates in terms of global platinum group metals (PGM) resources (78 %), manganese (80 %), chromium (77 %), gold (15 %), and alumina-silicates (34,5 %). It is ranked second in terms of vermiculite, vanadium, zirconium minerals, titanium minerals and fluorspar deposits. Other minerals of value include antimony, phosphate rock, nickel, uranium, lead, coal, zinc, silicon and iron ore (DMR, 2010).

Overall, there are more than 54 minerals being actively mined in South Africa, with prospects for the exploitation of an additional two new minerals in the short-to-medium-term, namely magnesium and rare earths (Baxter, 2011). Apart from its prolific mineral reserves, South Africa's strengths include a high level of technical and production expertise, and research and development activities across all stages of the mineral value chain.

In 2009, the mining industry was the sixth largest contributor to total GDP in South Africa, accounting for 8 % directly and 10 % indirectly. Mining and quarrying collectively contributed 10 % to gross fixed capital formation (GFCF), employed 2,9 % (492 219) of South Africa's economically active population, and generated R176,4 billion in total export sales. The PGMs, coal, gold and iron ore sectors collectively accounted for more than 85 % of the revenue generated by the industry. Most of these minerals are exported in a raw or semi-processed form (such as washed coal, iron ore fines, titanium slag or refined metal) to processing plants, refineries and fabrication plants based around the world.

Not only does the minerals sector contribute significantly to providing capital for reinvestment and new developments in South Africa, but it has also been instrumental in providing the impetus for the emergence of a diverse secondary industrial sector, as well as an extensive and efficient physical infrastructure (DMR, 2010). Mining activities accounted for 50 % of Transnet's rail and port volumes in 2009, 15 % of electricity demand, and 37 % of the country's liquid fuels via coal. Based on conservative modelling, a 3,9 % growth rate for the non-gold mining sector is envisaged for the period 2010-2020, facilitating the creation of more than 100 000 jobs (Baxter, 2011).

Despite the extensive direct and indirect impacts engendered by the minerals sector, both historically and currently, there is a widespread perception that the sector needs to play a more active role in driving structural transformation in South Africa, particularly in expanding linkages to the manufacturing sector. In this regard, two recent legislative developments are of importance.

The first is the *New Growth Path: The Framework* (NGP), which sets the overarching agenda for the country's industrialisation process going forward. At the core of the plan are the ten identified 'growth driver' sectors deemed to have the dynamic to set the economy on a production-led growth trajectory over the next decade. The NGP alludes to four major structural challenges that have impeded the realisation of desired growth rates in the past:

- logistics, energy infrastructure and skills shortages
- economic concentration and collusion in key parts of the economy
- an uncompetitive currency
- the persistent balance-of-trade deficit, and the need for targeted support and interventions to alleviate them (EDD, 2010).

The DTI's *Industrial Policy Action Plan (IPAP2)* is the guiding three-year rolling framework through which the primary objectives of the NGP are to be realised, specifically achieving growth rates of between 6 % and 7 % and the creation of five million jobs by 2020 (DTI, 2011).

The minerals sector is prioritised as a sector for growth, based on the scale and depth of the industry at present and its capacity to attract investment, generate employment, improve the skills base and facilitate linkage development within and across the economy. Specifically, the intention is to promote downstream mineral beneficiation in South Africa through firstly, the establishment of minimum beneficiation levels across each of the ten identified commodities and the identification of 'offset opportunities' within the Charter. This will provide the foundation for the deepening of five mineral value chains in South Africa. Secondly, a gold loan scheme is to be introduced to promote greater jewellery production in the country. Overall, the NGP envisages the creation of 140 000 direct jobs in mining by 2020 and 200 000 by 2030 (EDD, 2010).

The primary responsibility for fulfilling the goals scoped for the minerals sector in the NGP, and IPAP2 in particular, is the DMR. The approval by Cabinet of the Beneficiation Strategy this year marks a significant milestone in the minerals policy landscape. The strategy is anchored in a range of existing legislations and policies. Most notable are the Minerals and Mining Policy for South Africa (1998), the MPRDA, the Broad-Based Socio-economic Empowerment Charter (BBSEE, 2004), the Precious Metals Act (2005) and the Diamonds Second Amendment Act (2005).

The strategy also complements broader sector initiatives, such as MIGDETT, through which the government has developed a medium-term growth and development strategy for the mining sector, as well as the developmental investment objectives of the IDC, the DTI and the Department of Finance. These are aimed specifically at fostering a favourable business environment for the establishment of new enterprises and attracting new investors.

The purpose of the strategy is to provide a "framework that will enable the orderly development of the country's mineral value chains, thus ensuring South Africa's mineral wealth is developed to its full potential and to the benefit of the entire population" (DMR, 2011). It acknowledges that beneficiation should be "considered on a value-chain by value-chain basis, be geared to higher levels of employment intensity and value addition, and take into account infrastructure considerations (such as energy and water availability)" (DMR, 2011). The emphasis of the strategy is on advancing those value chains that "demonstrate intrinsic, multi-tier value proposition benefits for South Africa" (DMR, 2011). These include energy commodities, iron and steel, pigment and titanium metal production, autocatalytic converters and diesel particulate filters, and jewellery fabrication.

The strategy notes that, in addition to the constraints to growth identified in the NGP, targeted interventions will be needed to overcome challenges specific to the minerals industry, including limited access to raw materials at developmental prices, shortages of critical infrastructure, limited exposure to R&D, and limited access to international markets. Successful implementation of the strategy "requires an integrated approach" (DMR, 2011: iv) and will depend on "intensive co-ordination across a range of government departments ... as well as other key mining stakeholders, including business and labour" (DMR, 2011: v). Currently, individual commodity implementation plans have been developed and approved by Cabinet for the iron and steel, and energy commodity value chains (Miningmx, 2011).



A key lesson from industrialised countries that have successfully used their mineral resource base to initiate sustainable and long-term economic growth and development is that, it is not *what* is produced, but *how* it is managed that is of critical importance (Walker & Minnitt, 2006).

It is questionable as to whether the strategy as it is currently presented adequately captures and addresses the complexities and nuances of the South African minerals sector for it to be meaningfully implemented. The concepts of ‘mineral beneficiation’ and ‘value adding’, as presented in the NGP, IPAP2 and Beneficiation Strategy, are too loosely defined and narrowly applied, and as such are unlikely to facilitate the scale and depth of growth needed and potentially possible in the minerals sector. The documents place an overemphasis on the strengthening of ‘downstream mineral beneficiation’ activities. Other possibilities, notably strengthening ‘upstream’ and ‘side stream’ activities are not elaborated on to any great extent. For the minerals sector to realistically and tangibly contribute to the structural transformation of the South African industrial base, mineral beneficiation has to be expanded to include the promotion and support of all direct and indirect economic linkages associated with the minerals industry.

“The case study countries and international surveys clearly indicate that resource-based industrialisation and job creation is dependent on establishing the crucial mineral economic linkages: the Fiscal Linkages (resource rent capture and deployment/reinvestment), the Backward Linkages (upstream- mining supplier industries), the Forward Linkages (downstream- mineral beneficiation), the Knowledge Linkages (sidestream-mineral HRD and R&D) and the Spatial Linkages (sidestream-collateral use of mineral infrastructure and LED). This is in line with our 1992 Ready to Govern document, that “Policies will be developed to integrate the mining industry with other sectors of the economy by encouraging mineral beneficiation and the creation of a world class mining and mineral processing capital goods industry” and our 2007 Polokwane Economic Transformation Resolution that our mineral “resources are exploited to effectively maximise the growth, development and employment potential embedded in such national assets, and not purely for profit maximisation.” (SIMS, 2012)

TOWARDS A BROADER VIEW OF MINERAL BENEFICIATION IN SOUTH AFRICA

Although mineral resources represent a finite source of comparative advantage to nations, evidence from around the world attests to the fact that they can be used as a platform on which to base long-term sustained economic growth and development, if managed and supported appropriately (Porter, 1990). Apart from the opportunity to reinvest mineral-derived rents in expanding and improving the physical and social infrastructure in a country, international experience highlights the benefits of maximising the concomitant economic opportunities that arise as a consequence of mineral extraction and processing activities. These include beneficiation linkages upstream (backward), downstream (forward) and sidestream (laterally) of a particular operation (Walker & Jourdan, 2003).

The current production landscape differs considerably from that which existed two decades ago, with interrelated firms, suppliers and support services operating across all stages of the production process. In the past, mining, manufacturing, retail and services existed along a linear supply chain, which was largely bounded by national boundaries. In this context ‘value adding’ simply meant taking a raw material and transforming it to something more valuable via large-scale manufacturing. With the intensification of globalisation, geographical barriers have been removed and value chains have become increasingly fragmented and dispersed. Mines and processing plants are located where the resources are, often in remote areas, while refineries and fabrication plants are sited as close as possible to end users.

Moreover, mineral resources are increasingly being traded internationally, which means that manufacturers throughout the world are faced with similar prices and delivery conditions for acquiring

inputs. Competition and consolidation among commodity suppliers has consequently intensified. Wider access to information and easier means of communication has enhanced the efficiency of markets and enabled capital and skills to flow to where they can be employed most productively. (Walker & Minnitt, 2006) and (Lydall, 2009).

The shift by mineral producers to base their location decisions on the availability of creative assets, such as technology and innovative capabilities, skilled human capital, and a favourable business environment, rather than basic factor advantages (access to abundant natural resources, labour and capital) means that countries lacking traditional comparative advantages are equally placed to compete for foreign investment. Success in this new environment therefore requires flexibility, adaptability and responsiveness on the part of all stakeholders to adopting strategies that are as cross-cutting and broad-based as possible and emphasise the strengthening of R&D, innovation and education bases.

The new view of value adding therefore takes cognisance of all direct and indirect activities in domestic markets capable of engendering economic, technical, social and environmental advancement in global supply chains. Such an approach encompasses traditional downstream beneficiation, as well as upstream activities (the supply of innovative equipment and services to mining and downstream processing firms) and side stream activities (supply of infrastructure and technological inputs etc). While the latter two cases are not considered to be 'moving up the value chain' in the traditional sense, such activities do add value through local business growth, increased knowledge capital and more energy-efficient operations. They can facilitate the structural shift of an economy into manufacturing activities, with higher employment spillovers and exports.

DOWNSTREAM MINERAL BENEFICIATION

Traditionally, downstream beneficiation has been regarded as being the most logical natural progression for a mineral-rich country to leverage off its comparative advantage to achieve a more diversified, high-value and internationally competitive industrial base. Downstream beneficiation involves the sequential transformation of a raw material through the production process using local resources (labour or capital) to a more finished product that has a higher value than the sale of the original raw material for export.

Four basic stages underpin the process:

- Stage 1 involves the process of mining and producing an ore or concentrate
- Stage 2 converts the concentrate into a bulk tonnage intermediate product
- Stage 3 transforms intermediate goods into a refined product for purchase by both small and sophisticated industries
- Stage 4 is the action of manufacturing a final product.

Each successive level of processing permits the product to be sold at a higher price than the previous product or original raw material and adds value at each stage. Activities include both large-scale, capital-intensive projects, such as smelting and sophisticated refining plants, as well as labour-intensive operations, such as craft jewellery and metal fabrication. The ultimate objective is to create an integrated industrial platform of inputs for component and original equipment manufacturer (OEM) exports, capable of operating independently of the primary industry and contributing significantly to employment creation, foreign exchange earnings, economic diversification, and industrial upgrading. (Baxter, 1994), (Jourdan, 1994) and (Walker & Jourdan, 2003).



As evident in the next figure, the direct and indirect impacts vary at each stage. Stages 1 and 2 tend to be highly capital-intensive operations, with long lead times between planning and commissioning, and requiring a large but low-skilled workforce. In most cases, mines and concentrator plants tend to be located in close proximity to ore resources. Stages 3 and 4 tend to have a medium to high capital intensity and require sophisticated technologies and processes to be competitive. Although employment opportunities tend to be low and require highly-skilled workforces at Stage 3, there is significant labour absorption potential for low- and semi-skilled employees at the mass manufacturing stages (Stage 4). Since transportation costs increase with each subsequent stage of processing, investor decisions to localise in a particular area or proceed with beneficiating into Stages 3 or 4 activities are determined more by ease of access to distribution channels/end user markets, availability of inputs, such as water and electricity, at favourable rates and competitive incentives, than about proximity to the feedstock.

Stages and impacts arising from downstream mineral beneficiation

Stage	Mineral Beneficiation Process Category	Process Flow Chart	Labour Intensity	Capital Intensity
1	The action of mining and producing an ore or concentrate (primary product)	Run-of-Mine Ores → Washed & Sized Concentrates	High	High
2	The action of converting a concentrate into a bulk tonnage intermediate product (e.g. a metal alloy)	Mattes/Slags/Bulk Chemicals → Ferro Alloys/Pure Metals	Low	High
3	The action of converting the intermediate goods into a refined product suitable for purchase by both small and sophisticated industries	Steel/Alloys → Worked Shapes & Forms	Low	High
4	The action of manufacturing a final product for sale	Worked Shapes & Forms → Worked Shapes & Forms	Medium to high	Medium to high

Source: (Baxter, Beneficiation of South Africa’s Minerals: An Assessment of the Key Issues, 1994)

Support for increased downstream beneficiation carries both national (increased foreign exchange earnings) and local benefits. In the latter case, it is argued that, when more capital is directed into and spent within a particular locality, more money for wages becomes available and local economic opportunities increase as capital and resources are consumed through the construction of a new industry. The opposite effect is the loss of local and national revenues through ‘leakages’ in local spending. Moreover, mineral-based intermediate and finished products generally do not suffer the same terms of trade decline and volatility that raw materials do and can survive after the exhaustion of the original deposit by importing the necessary ore or concentrate (Walker & Jourdan, 2003).

Although most mineral beneficiation activities in South Africa are concentrated in Stages 1 and 2 of the value chain, Stage 3 and 4 beneficiation does take place where the commercial opportunity exists and

depending on how beneficiation is defined. The SIC index generally categorises Stage 1 and 2 activities together as “mining and quarrying”⁵⁹, while Stages 3 and 4 activities are incorporated within “manufacturing”⁶⁰ activities. The first two stages of the value chain are the responsibility of the DMR, while the last two fall within the ambit of the DTI. If one traces the flow of commodities through the economy, the true extent and depth of beneficiation becomes more apparent. Nearly all of South Africa’s cement, 65 % of its steel, 30 % of its liquid fuels, 94 % of its electricity and a significant proportion of its fertilizers, plastics and polymers are consumed locally. According to the Chamber of Mines (2011), in 2009 an estimated R200 billion in value was added to the local economy through Stage 3 and 4 industries, utilising feedstock derived from domestic mining activities.

Nevertheless, although the level of downstream beneficiation has increased in South Africa over the years, particularly since the mid-1990s, only a very small proportion of metals are beneficiated through to Stage 4, where the highest employment spillovers occur. Although 100 % of gold mined in South Africa is refined (Stage 2), only 2 % is beneficiated further into a final product (Stage 4). In the case of aluminium, around 30 % is beneficiated to Stage 3, while 11 % is used to produce finished goods. Only 13 % of PGMs are beneficiated locally in the autocatalysts and jewellery sectors (Mintek, 2008).

Sector-specific and macro-economic leverage

A key objective of the Beneficiation Strategy is to intensify Stage 1 and 2 activities in the platinum, gold, iron ore, chrome, nickel, manganese, vanadium, diamonds, uranium and coal, and titanium industries and direct a greater proportion of outputs into specific Stage 3 and 4 activities. Increasing the level of downstream beneficiation will contribute to minimising the enclave effect, which currently characterises some mineral operations in South Africa, and increase employment creation opportunities. Nevertheless, the extent to which South Africa can realistically leverage off its production capabilities on the scale envisaged by the NGP, IPAP2 and Beneficiation Strategy, particularly in the short-term, is limited by a number of sector-specific and macro-economic factors.

The location advantage

The Beneficiation Strategy is premised on leveraging the location advantage of producing crude resources to establish resource processing industries, which could provide the feedstocks for manufacturing and industrialisation. In the context of the minerals industry, the availability of mineral resources only offers a comparative advantage if the cost of the mineral is lower than that available in competitor countries, and this is commodity specific.

The availability of cheap high-grade iron ore in South Africa is a mineral resource comparative advantage, which does not exist in many other countries and has been fundamental in the establishment of the downstream steel industry. Similarly, the availability of large resources of chrome has historically provided

⁵⁹ Mining and quarrying is used in a broad sense to include the extracting, dressing and beneficiating of minerals occurring naturally, for example solids such as coal and ores; liquids such as crude petroleum and gases such as natural gas. Mining includes underground and surface mines, quarries and the operation of oil and gas wells and all supplemental activities for dressing and beneficiating ores and other crude materials such as crushing, screening, washing, cleaning, grading, milling, flotation, melting, pelleting, topping and other preparation needed to render the material marketable. Reclamation of minerals from mine dumps and worked out mines is also included (www.statssa.gov.za).

⁶⁰ This includes the manufacture of coke, refined petroleum products and nuclear fuel; manufacture of chemicals and chemical products; manufacture of rubber and plastic products; and the manufacture of basic metals, fabricated metal products, machinery and equipment and of office, accounting and computing machinery (www.statssa.gov.za).



local ferrochrome producers with a distinct supply advantage and has been instrumental in deepening capabilities in the sector.

In the case of gold, platinum and diamonds, however, a jewellery manufacturer can purchase such commodities at the same price anywhere in the world as in Johannesburg and no natural resource advantage exists for domestic producers of such commodities. Although the availability of other associated input materials (refractories, reductants, fluxes and other associated chemicals) used in mineral beneficiation processes does strengthen the comparative advantage in certain value chains (as they can be purchased locally at competitive prices), in some cases the lack of necessary inputs locally undermines this advantage.

In the case of the iron and steel value chain, the price of coking coal (for which local supplies are supplemented with imports) is increasingly replacing iron ore as a key cost determinant, as global shortages have resulted in the prices increasing significantly year-on-year, putting considerable strain on the industry (Creamer T. , 2011).

Core competence

The potential for mining companies to respond to the call for increased downstream beneficiation and diversify activities into Stage 3 and 4 of the value chain has to be reviewed on both a company-by-company and commodity-by-commodity basis. Given changes in the production landscape, most mining companies today prefer not to completely vertically integrate into the mineral value chain, since their core competence rests in the extraction and processing of mineral resources (Van Rensburg, 2011). A mining company has a number of issues to consider before deciding to beneficiate.

By beneficiating some of its output, a mine competes directly with its customers. Beneficiated products often require customisation and a much more diverse client base. This is different from selling the mining output, which often has a central market and is a standard, commoditised product. Success in the new activity may require process expertise or factor endowments (e.g. cheap labour), not necessarily readily available to the mining company. Matters of scale, transport, technology and skills availability also become more critical for success. Moreover, most vertical integration activities that are currently taking place in the global minerals industry are being driven by firms at Stage 3 and 4 of the chain, where securing long-term supply agreements with primary producers is of long-term strategic importance, rather than Stage 1 and 2 producers (PWC, 2011).

Capital risk and economies of scale

Third, a distinctive feature of mineral-based beneficiation activities is the increasing levels of capital and economies of scale required to ensure adequate returns on investment. The level of investment risk has also increased as easy-to-access high-grade deposits are becoming harder to find, forcing producers to go deeper, move greater volumes and employ more rigorous processing techniques to remain competitive. Intensifying Stage 1 and 2 activities in the short-term, therefore, may only be possible in certain instances.

In some commodities, increasing the level of extraction and possibilities for beneficiation is dependent on investment decisions in other sectors. For example, nickel is produced as a by-product of PGM mining and therefore any opportunities for increasing output have to be reviewed in conjunction with those planned in the platinum sector. Other commodities will require significant long-term investment to unlock the beneficiation potential. For instance, it has been reported that the coal mining industry and related infrastructure need an investment of more than R100 billion over the next ten years to meet growing

domestic demand and exports (Eberhard, 2011). While South Africa is a major exporter of titanium bearing minerals, and a minor producer of processed titanium dioxide, there is only limited local capacity in titanium fabrication and no Stage 4 titanium metals industry. Considerable investment will be required in acquiring technology and developing local innovative capacity to advance beneficiation in the value chain as envisaged (Oosthuizen, S J, 2010).

Infrastructural constraints

Not all commodities processed to Stage 2 in South Africa are capable of being further processed in the short-term, due to prevailing infrastructural constraints, specifically in the provision of adequate logistics (rail) services and electricity. The competitiveness of the country's exports and potential take-up by local firms has been significantly impacted by restricted access to, and a poorly maintained, domestic rail system, particularly in the transportation of bulk commodities between the hinterland and ports.

Transnet

State-owned Transnet has a monopoly over South Africa's rail network. Although more than half of Transnet's business is bulk commodities, only 13 % of South Africa's freight is currently carried by rail. High rates of derailments and collisions, inefficiencies on major railway lines, and general network shortages between mines and ports have not only affected exports levels in certain commodities, but has resulted in an increasing shift to bulk road transport, with detrimental impacts on roads, particularly in the rural areas (Barloworld Logistics, 2011). A cost effective, efficient and expanded railway network is deemed imperative to expanding beneficiation opportunities in the iron ore, coal, manganese and ferrochrome sectors.

“Infrastructure constraints have limited the degree to which South Africa has benefited from the commodities boom since 2002 for minerals depending on rail or energy-intensive processes: iron and manganese ores, coal and ferro-alloys. The main constraints have been transport (rail) and energy infrastructure capacity that have been unable to expand to meet demand, mainly due to funding constraints. A HSRC model indicated that a 30% increase in mineral exports could possibly create up to 280 thousand jobs across our economy.”
(SIMS, 2012)

Eskom

Electricity supply, particularly to large industrial users, is currently constrained and expected to remain tight until about 2016 when new capacity from Eskom becomes available. This has major implications as to the rate and scale at which downstream beneficiation advances over the next few years. Most mineral beneficiation activities are highly energy-intensive, particularly at Stage 2 and 3 of the process.

Historically, the production of electricity from low grade coal gave a substantial energy comparative advantage to the domestic industry and users were able to negotiate long term flexible electricity pricing terms with Eskom. Indeed, the decision to localise aluminium smelters (using imported bauxite) in South Africa was based on the availability of competitively priced electricity. As much as 50 % of the cost of producing aluminium from alumina is accounted for by electricity. On the basis of the electricity prices negotiated in the 1990s, the Hillside smelter has the lowest production costs globally at US\$959 per tonne. Following the energy crisis in early 2008, mining companies have had to implement various measures to regulate and reduce the energy intensity of their operating mines and plants, as well as postpone new investments, with impacts on the realisation of economic spillovers in the economy. BHP Billiton has reportedly voluntarily put 130 megawatts back into the South African power grid through the closure of



the B and C potlines at the Bayside smelter. This will result in an annual loss of 90 000 tonnes of production and 400 permanent direct, 300 contractor and 3 000 indirect multiplier job opportunities (Creamer M., 2011).

The increasing price of electricity⁶¹ is having a knock-on effect, on both the economic viability of existing operations and investor decisions to establish new beneficiation plants in the country. The chrome industry has one of the most mature value chains in the local mining industry, with almost all inputs, including technology, sourced and developed locally. Since 25 % of the input costs in a ferrochrome smelter are attributed to electricity, rising power prices have driven up operating costs by 7-8 % per annum in real terms, resulting in South African ferrochrome becoming increasingly uncompetitive on the international market.

South Africa's position as a world leader in chrome beneficiation is currently being threatened, not only by new entrants, notably China, who are opting to purchase the raw material (chrome ore) from South Africa and beneficiate it themselves (in this way shifting employment opportunities out of South Africa to China), but also the decision of local producers to invest elsewhere rather than in South Africa (Matomela, 2011) and (Rees, 2011).

“Energy: One of the biggest challenges our country faces with respect to energy relates to the reliance on coal for electricity generation. The problems range from Eskom’s inability to secure sufficient coal, which arises from a conflict between the mining industry’s preference to exploit lucrative international markets to concerns over the quality and price of coal that is supplied to the energy utility. This will greatly have an impact on the utility’s ability to meet its electricity generation targets. Furthermore, these practices have prompted Eskom to seek the introduction of mechanisms, such as price controls, quotas on exports and restrictions on the exports of the types of coal used by Eskom. There have also been calls from some quarters for the Department of Mineral Resources to declare coal as “strategic mineral” which would allow the DMR Minister to apply certain conditions on the production, storage, pricing and use of coal in South Africa.” (SIMS, 2012)

Right quality and volumes

The possibility for growth in Stage 3 and 4 activities is also influenced by the availability of processed inputs to domestic consumers at the right quality and volumes. In this regard, interventions will be required in certain commodities before Stage 3 and 4 activities can commence on the scale and depth required.

The proposed gold loan scheme identified in the IPAP2 document is designed principally to alleviate the cost constraints experienced by local jewellers in holding precious metals, and will encompass a financing mechanism to enable jewellers to acquire gold from the lending institutions at a competitive interest rate and stable prices (DTI, 2011). To expand the diamond cutting and polishing activities in South Africa, the DMR acknowledges that local supply will need to be augmented by importing rough diamonds. The manner in which this will take place and where the rough diamonds will be sourced is still under review (Mail & Guardian, 2011).

⁶¹ In 2009, the National Energy Regulator of South Africa (NERSA) approved three electricity tariff increases to be phased in over three-years – 24,8 % in 2010/11, 25,8 % in 2011/12 and 25,9 % in 2012/13. This was seen as critical to supporting the country’s and Eskom’s objectives to expand energy infrastructure and the introduction of independent power producers (IPPs).

End user markets

South Africa's relatively isolated position from end user markets restricts the potential involvement of local Stage 3 and 4 firms in certain global value chains. This is aggravated further by existing trade barriers in prospective target markets for beneficiated products and the access of local firms to processed inputs at competitive prices. Due to the economies of scale required at Stage 2 and 3 of the value chain, the small South African economy is only able to support a few large-scale beneficiation plants in the country. This has resulted in an uncompetitive domestic environment for intermediate products, resulting in inevitable monopolies and the prevalence of 'import parity pricing' (IPP). This is where domestic suppliers of intermediate products charge domestic consumers prices that are equivalent to imported prices, plus the effective South African duties (Jourdan, 1994). Any comparative advantages that may have been available to Stage 1 to Stage 3 beneficiation industries have therefore not filtered through to Stage 4 firms.

IPP has reportedly added between 20 and 40 % to the price of steel, polymers and stainless steel in the local market and has been a prime factor behind the limited expansion of Stage 4 activities in the country. The government is currently exploring the option of introducing a developmental pricing policy in the iron and steel industry in an effort to address the IPP issue.

Domestic demand dynamics

The muted expansion of Stage 3 and 4 activities in South Africa has also been attributed to an underdeveloped local market. Most Stage 1 and 2 producers enter into long-term off-take agreements with major shareholders at the initial project planning stage. The decision to divert some of the output to meet domestic requirements has to be commercially viable and this is dependent on the strength of the domestic demand dynamic. An expanding domestic market for the outputs from the beneficiation process is critical to success in subsequent stages of the beneficiation chain.

South Africa's success in Stage 1 and 2 industries suggests that the impetus provided by the domestic availability of raw materials has been sufficient to 'push' it forward to the next level, but has lacked the momentum to push it further to the next stages. The pull from the domestic market therefore needs to be strong enough to overcome this lull in momentum. For example, although the iron and steel value chain is well-established in South Africa, almost 85 % of local consumption is currently in low intensity sectors. The industry is currently operating below capacity and is in a state of oversupply. The situation will only change with a radical growth in demand fuelled by increased investment in both the public and private sectors.

In the case of manganese, some producers maintain that further downstream beneficiation in South Africa into sinter is unviable as there are few local users of ferromanganese and sinter products do not travel well. Nevertheless, Kalagadi Resources, a manganese junior, is planning to establish a sinter plant close to

“Jobs from Steel: Steel is by far the most important raw material into manufacturing, which is probably the only sector capable of absorbing our massive number of unemployed. Most of the countries surveyed had competitive domestic steel prices due to their size (Brazil, China) or membership of trading blocs (EU, Mercosur, ASEAN) and most have or have had State Steel Companies (China, Finland, Brazil, Sweden, Norway). We need to ensure that steel is supplied into our economy at competitive (EPP) prices. This could create thousands of downstream jobs. Iron ore should be classified as a “strategic mineral” (see above) and mining licenses should obligate local sales at “cost plus”. Local customers, e.g. AMSA (Arcelor-Mittal), should likewise be obligated to apply EPPs on their products (steel). In addition the state and Unions should form a SPV to use their combined holding to champion developmental outcomes. The cost of increasing the state holding in Kumba from ~13% to >50% would be prohibitive (about R15bn) and may require a constitutional amendment to force Anglo-American to reduce its share to below 50%, “in the public interest”.” (SIMS, 2012)



its Northern Cape mine and a smelter at Coega to produce high-carbon ferromanganese for both the domestic and overseas markets. While the smelter will contribute to increased foreign exchange earnings and local job creation during the construction and operation of the plant (1 000 and 400, respectively), the success to which the outputs will translate into an expansion of Stage 4 manufacturing capabilities is wholly dependent on the strength of the demand pull from local firms (Janse van Vuuren, 2011).

Skills shortages

There is always a debate as to whether South Africa can jump from Stage 2 to Stage 4 activities to secure job creation quicker and compete with economies such as China. Baxter (2011) maintains that, while South Africa has a large potential pool of employees, the low skilled quality of the workforce is a major constraint to achieving this. The situation is compounded by a general shortage of engineers and artisans. Significant advances are required in skills upgrading and technical know-how in the domestic market for South Africa to be able to make this jump successfully (Lundall P, 2008) and (Kaplan, 2011). In recognition of the need for improving the education and skills base in South Africa, the NGP emphasises the importance of strengthening high school mathematics and science, and targets the production of 30 000 more engineers by 2014 and 50 000 more artisans by 2015, and doubling research and development investment to 2 % of GDP by 2018 (EDD, 2010).

UPSTREAM MINERAL BENEFICIATION

Upstream mineral beneficiation (also referred to as backwards linkages) refers to the direct and indirect linkages between an industry and its suppliers/supply chain. One of the significant features of the South African resource-based industrialisation has been the successful development of strong capabilities in specialised capital goods and services related to the extraction, processing and refining of mineral resources. Due to the geological nature of minerals resources, a demanding clientele, proximity to mines on which to test and develop new products and processes, R&D organisations, and a long history of collaboration and interaction, South Africa has evolved to become a world leader in the provision of a number of innovative solutions to the local and global minerals industry (Walker & Minnitt, 2006).

It is argued that this base of accumulated know-how and expertise, and the fact that such activities have the capacity to continuously upgrade and innovate and are globally traded, provide a unique competitive advantage for South Africa and an opportunity upon which to advance the mineral beneficiation objectives of the government. While innovation in the supply of equipment and services to mining and mineral processing industries is not considered to be ‘moving up the value chain’ in the conventional sense, evidence from around the world attests to the fact that this activity does indeed generate significant value through the manner in which it is applied to the mining industry. Benefits can be economic (expansion of new and existing businesses), social (employment creation,

“Amend the MPRDA to include upstream value addition (backward linkages: local content) as an objective of the Act and strengthen the Minister’s power to include such conditions in the mining concession/license. This could be done through the development of clear local content milestones (5, 10, 15 year targets) for all mining concession contracts (licenses) in order to maximise local value addition. Such milestones should also reward regional content, possibly at a discount to SA content, to encourage regional sourcing of inputs. The concession contract (license) should make it clear that failure to achieve the asset owner’s targets could result in a cancellation of the contract and that the asset will be re-concessed (auctioned against developmental criteria).” (SIMS, 2012)

increased national competitiveness), technical (increased knowledge capital, improved product/system development), and environmental (greater efficiency of activities) (Lydall, 2009).

The full potential of the sector is frequently misunderstood, due to the conventions of classifying economic activity. Fabricating mining equipment is a manufacturing activity, while designing stabilisation systems for tailings dams is a service activity. Yet it is precisely because these activities are intimately linked to the minerals sector that they should be understood as part of a far reaching beneficiation strategy and prioritised for support (Kaplin, 2011). Although supplier firms have generally been competitive in the international market in terms of price, quality and a spectrum of services offered, over the past few years there has been a gradual eroding of this competitive position. Factors that have been responsible for this include the strengthening of the Rand, increased input costs (notably steel), logistics challenges and costs of road transport and shipping, little transparency in the procurement process, increased imports and threat of pirated parts, low productivity in the labour force and high labour costs relative to competitor countries, and lack of certification (Walker & Minnitt, 2006; Lydall, 2009). These issues require intervention at the national level to ensure the future vibrancy and growth of the industry.

SIDESTREAM MINERAL BENEFICIATION

Mining, by virtue of the scale and scope of activities involved, creates the critical mass necessary for the establishment of other industries, such as stock markets, financial services, power, logistics, communications, skills and technology development (R&D). Such impacts can be defined as sidestream beneficiation activities (Walker & Jourdan, 2003). Although considered to be an indirect impact, the depth and extent of sidestream linkage development in the regional economy has a determining influence on subsequent upstream and downstream linkage development. This is particularly so as one moves further down the mineral value chain where inputs such as R&D, skills, technology and infrastructure increase in importance. As such, they need to feature more strongly in the policies supporting beneficiation in South Africa.

CONCLUSION: OPTIMISING STRENGTHS, MINIMISING WEAKNESSES

South Africa is in the unique position of possessing the necessary minerals to both catalyse industrialisation and facilitate the gradual shift from resource dependent to knowledge-based growth. Complementing this comparative advantage is a well-established and globally competitive upstream goods and services sector, supported by a core of related and supporting sidestream enterprises and institutions. The role to be played by the mineral sector going forward is currently defined in three policy documents: the EDD's NGP, the DTI's IPAP2 and the DMR's Beneficiation Strategy. The next step is to 'get the basics right' – ensuring that opportunities in the minerals sector are translated into actual quantifiable benefits/impacts and that weaknesses are minimised through appropriate and targeted interventions.

Given the prioritisation of the minerals sector in the national development agenda, it is imperative that the concepts of 'mineral beneficiation' and 'value addition' be broadened to encompass all economic linkages arising from the establishment of a new mine or plant. The pursuit of downstream beneficiation of minerals prior to export should not be placed at the top of the national agenda for the minerals industry in isolation. Beneficiation contributes to growth and diversification only when it generates above average upstream and sidestream linkages, not merely because it is part of a country's resource endowment. Targeted strategies should be developed to advance downstream, sidestream and upstream linkages simultaneously. The emphasis on linkages moves beyond mineral promotion and regulation into the ambit of industry, trade and human resource development. Complementary strategies are required to advance



the growth of upstream, sidestream and downstream beneficiation activities in South Africa. Initiatives and decisions that are taken should be the outcome of public-private co-operation and reflect the interests, objectives and concerns of all stakeholders.

Governments are expected to be an indirect force in an economy, guiding and influencing the structures and context in which firms operate and work through. They are expected to promote initiatives that are cross-cutting in nature, that do not benefit particular firms, favour specific industries/sectors or limit rivalry in the market, but instead contribute to inducing growth (Roelandt, 2000). Direct government intervention is only justified if there is a clear market or systematic failure. It has been asserted that “adversity has proven to be a much stronger force for bonding and co-operation than prosperity. New competition, market restructuring, technological change, and ageing workforces have catalysed collective action in many regions” (Rosenfeld, 2002). Although government interventions are generally not able to overcome inherent structural disadvantages, they can have a determining influence in ensuring the environment is conducive to growth.

Specifically, business confidence in the economy needs to be improved. South Africa is ranked 67 out of 79 countries in the Fraser Institute Survey for 2011 for prospecting potential, and 54th in terms of global competitiveness on the World Economic Forum’s Competitiveness Review 2010/11. An inefficient bureaucracy, poorly educated workforce, crime, restrictive labour regime, and uncertainty regarding mineral legislation have contributed to this situation. With the global demand for metals and minerals expected to reach historic highs over the next decade (World Economic Forum, 2010), South Africa is well-placed to capitalise on the opportunity of attracting new foreign investors in the minerals sector.

Efforts to scale up the infrastructure development programme, particularly around the logistics network and new power generation capacity, need to be intensified. Although most of South Africa’s mineral-based infrastructure is in place, there are still opportunities to expand networks to link-in depressed rural areas (such as the coal and PGM resources in Limpopo province). Although producers have indicated a willingness to contribute to investing in the improvement of the infrastructure base, extensive private-public partnerships have yet to materialise. It is imperative that the process be fast-tracked through collective dialogue to ensure cost-efficiency of current beneficiation projects and that new projects are not delayed unnecessarily.

The government is cognisant of the fact that interventions need to be intensified around facilitating downstream access to inputs at world competitive prices and providing incentives for beneficiation, procurement, export development and R&D. The possibilities of a developmental steel price are being evaluated for the iron ore and steel industry. The government is pushing for investment reciprocity with foreign investors (notably its BRICs partners) to facilitate mineral beneficiation at source. In return for raw materials, foreign investors are expected to facilitate the export of higher value added products to other countries. It is important to ensure that such investment agreements promote tangible and meaningful linkages to the local economy, rather than promoting beneficiation purely for export purposes.

At the same time, a critical evaluation of imposing export taxes on certain commodities, notably chrome, to foreign competitors should be undertaken to preserve local value chains as far as possible. Improvements should also be made to improve firm access to international and regional markets for manufactured product, to lower the cost of capital in South Africa, and to develop programmes to enhance workforce productivity and skills levels across the value chain. Provincial and local governments need to have a much more thorough understanding of the needs of their particular jurisdictions, particularly those

centred around mining projects, and be able to guide private sector investment into appropriate programmes and projects.

The private sector has an equally important role to play in the development process going forward. Private sector firms engage in direct competition with each other and generate the products and processes to propel and sustain growth. The private sector has a responsibility to provide accurate and timely information on the growth trends and opportunities within their sectors, and facilitate skills development, local procurement and the transfer of knowledge and technology. Mining companies should not be forced to subsidise beneficiation or to go into areas where they have little competence or skills. They need to be given the scope to advance what they do best, extract and process minerals. However, they can be encouraged to invest in infrastructure programmes and new business growth through off-set programmes and appropriate incentivisation. Existing multi-stakeholder structures supporting beneficiation need to be leveraged to ensure adequate communication and collective objectives are met.

In support of the NGP's and Beneficiation Strategy's emphasis on attracting new investors, the IDC has allocated approximately R102 billion over the next five years to advancing mineral beneficiation, manufacturing and agricultural activities in South Africa. Through its Mining and Metals Beneficiation Strategic Business Unit, the IDC will offer financial and technical assistance to mining-related enterprises that have a significant development component and promote job creation and value chain development. In October 2011, the Minister of Finance unveiled a R25 billion support package over the next six years to boost industrial development, assist entrepreneurs and accelerate job creation in the country. The DTI, through its industrial development zone (IDZ) at Coega, aims to facilitate the 'clustering' of ferrous and non-ferrous metal manufacturing enterprises through the provision of various services and favourable business environment. Greater awareness of the requirements for accessing and participating in these various initiatives, and of appropriate beneficiation levels per commodity and off-set requirements, needs to be communicated timeously to industry to ensure that viable opportunities for advancing beneficiation are expedited as efficiently as possible.



Chapter 18 The options for developmental state participation in the mining sector

A developmental state is one which leads and guides its economy and in which the state intervenes in the interest of the people as a whole. A convenient definition is that quoted by Ben Fine: “A state is developmental when it establishes as its principle of legitimacy its ability to promote and sustain development, understanding by development the combination of steady high rates of growth and structural change in the productive system, both domestically and in its relationship to the international economy; ultimately for the developmental state, economic development is not a goal but a means.” (Fine, 2010)

This might imply that a mining-based developmental state is where the government intervenes in the country’s mining to provide the basis for economic benefit. It is generally recognised in literature on developmental states that the key agents in assisting the state to carry out its developmental objectives for such intervention are state enterprises operating within a free-market economy. In considering a mineral-based developmental state, the further implication is that the government’s mining-related institutional capacity needs to be engaged. This would involve the associate research institutions, state-owned enterprises, development finance institutions and universities. Apart from the institutions, the constructive utilisation of resource rents generated by the industry and the infrastructure, secondary and tertiary sector supporting the industry are key factors in a developmental state imperative. Industrial and fiscal policy is crucial to the concept of the developmental state and the government therefore needs to look holistically at the economy and the location of the mining sector in that economy.

Developmental states take as many forms as there are countries and the definition cannot cover all its possibilities. In Africa, however, Botswana stands out as a success story of state participation in the mining sector, particularly as many of its neighbours in sub-Saharan Africa have failed to harness the full benefits of their respective mining sectors. Botswana’s experience is examined in more detail in the case study presented in Chapter 4.

During the Apartheid era, South Africa may have been considered a developmental state had it used its resources for all its people, and not just a minority of them. During both the colonial and Apartheid eras, large strategic industries were developed by the state, while the Apartheid Nationalist government built on the colonial institutions and created many of the institutions to develop an internationally competitive mining industry and to broaden the base of that industry into a diversified economy. Prior to democratisation, the South African government:

- developed key state-owned enterprises in the energy, petrochemical, steel and transport sectors
- ensured that the necessary infrastructure, such as the Sishen-Saldanha railway line, the Richards Bay railway line and coal terminal and other critical infrastructure to support these state-owned enterprises and private sector industries, was in place
- funded highly successful and efficient research and development science councils to develop technology for the mining industry and ensure South African leadership in the industry
- funded earth science education at the key tertiary education institutions and ensured, in partnership with the private sector, that South African mining and metallurgical engineers, geologists, metallurgists and earth scientists were international leaders in their fields
- managed state-owned artisan training facilities, such as the Government Miners Training Colleges

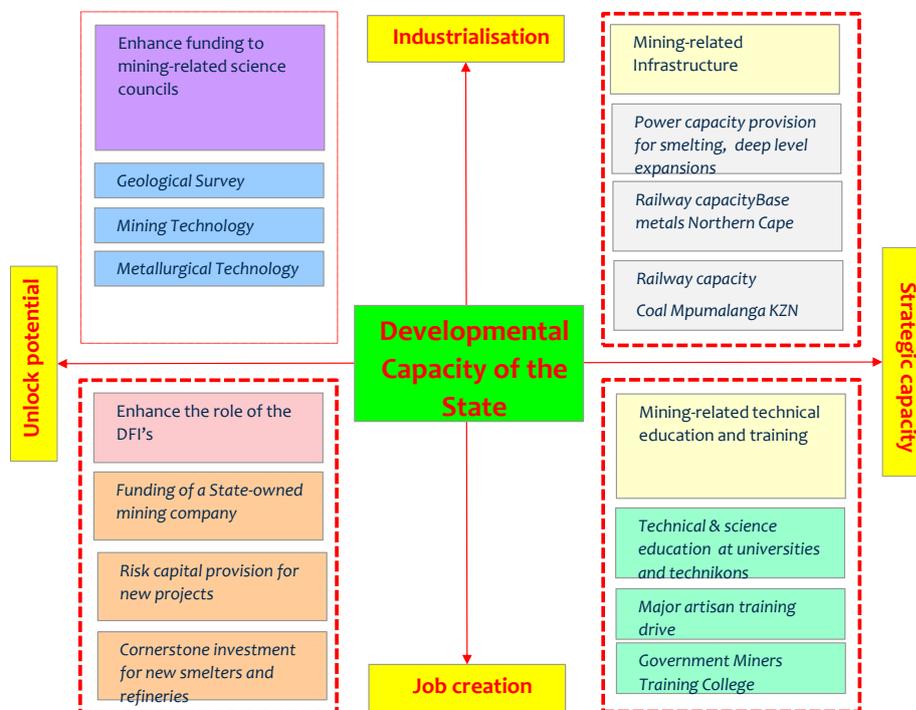
- developed mining fiscal packages, such as the gold lease formula, that gave the state upside during periods of high commodity prices, yet eased the burden on mining companies during recessionary periods.

The government also introduced a range of pro-mining policies and regulations which, while being directed towards creating a globally competitive mining industry, were racially discriminatory, contradicting the fundamental tenets of a true developmental state.

Most of the key facilities are, however, still in place and can be re-mobilised or enhanced to support the industry. In its role as a developmental state, should the government wish to leverage the industry’s capacity to generate economic wealth through its primary activities, it requires the institutional capacity to provide the necessary support and appropriate policies to provide an enabling environment for sectoral development.

Institutional capacity of the state required for mining development

Key: DFI – Development Finance Institution



Most emerging mining countries do not have this capacity but this can be accessed via contracted out facilities. For example, the South African Geosciences Council has over the years provided geological survey services to many other African countries, even under the Apartheid government. In this respect, Fine’s qualifications for a developmental state are important, as he specifically includes “developing the combination of steady high rates of growth and structural change in the productive system, both domestically and in its relationship to the international economy”. To reiterate, from a developmental perspective, mining cannot be seen in isolation either from other domestic economic sectors or from the international economy. This includes remaining competitive in an increasingly competitive global economy.



The state can either undermine this competitiveness through ideological choices and political expedience at the expense of the sector's efficiency, or support the industry's competitiveness through constructive intervention. The latter can be achieved through investment by the state in:

- providing competitive access to project finance capital through Development Finance Institutions (DFIs)
- co-investment by a state-owned mining company or sovereign wealth fund in exploration and development in the higher-risk stages of a mining project life cycle
- competitively priced power, transport, industrial and social infrastructure
- industry supportive policies that do not necessarily impinge on the (holistic) rights of other stakeholders
- skills development to enhance operational efficiencies and work force career opportunities
- geological reconnaissance, an efficient cadastre, and freely available and easily accessible information to encourage investment into exploration
- a co-operative, efficient and transparent bureaucracy
- sector and activity-specific research and development in technology to enhance operational efficiencies.

Where these are in place, mining companies are inherently more willing to endure higher economic and resource rents. On the other hand, this is not the case, when the state is hostile towards business in general and the mining industry in particular, and uses its institutional capacity to extract greater rents rather than enhancing the economic potential of the industry (thereby also increasing the quantum of rents it derives).

Brazil and more recently Peru have demonstrated that socialist developmental agendas can also only be delivered within a sound economy and this requires the co-operation and subscription by the private sector. It becomes a question of 'take' or 'make' and the latter is invariably more sustainable. The rider is that the state needs the financial strength to 'make' its contribution and it therefore may need to have greater access to resource rents to implement these contributory support programmes. The question then becomes one of 'extracting more blood out of the mining stone', without crippling the industry and reducing its productive and labour absorptive capacity. Increased taxes undermine competitiveness.

INCREASING THE STRATEGIC CAPACITY OF THE STATE TO DEVELOP THE MINING SECTOR

In the general interest of resource scarcity and to optimise the economic benefits of a country's natural resources, the management of mineral resources must be guided by long-term national goals, visions and perspectives and an overall strategy for development. It is therefore imperative to achieve the best use of available mineral resources through scientific methods of mining, beneficiation and economic utilisation. South Africa is blessed with an exceptionally large and varied minerals resource base. The country's mineral worth is reflected in impressive production statistics, ongoing mining investment, globally-ranked multinational mining companies, and a dynamic mining supplies and services sector. (Ministry of Mines, 2004) and (DMR, 2011).

The next table illustrates the endowment of selected mineral-endowed countries. South Africa has estimated mineral resource worth of US\$2,5 trillion (non-energy in-situ mineral resources). However, a considerable proportion of the country's mined product is exported as raw ore or semi-processed products. Most mining companies in South Africa have functioned as enclaves, stimulating firms and

industries elsewhere rather than those in the immediate vicinity of the project. As a result, benefits from mineral development in the country have not been optimal (DMR, 2011).

The mineral endowment of different countries

Country	Value of Resources (Excluding Energy) - \$BN	Gross Domestic Product Contribution %	Average Royalty
Brazil	726	1.3	3.1
Canada	1000	4.3	2.0
Australia	1588	8	4.9
Russia	1636	10	6.4
	2494	8.7	2.5

Source: (Samanga, 2011)

The structure of the South African minerals industry has changed significantly over the past decade, both in terms of internal organisation of activities and the type of commodities produced. The process has been driven by a combination of political transformation, internal socio-economic pressures, the need for strategic capacity and international industry trends. The transformation process is set to continue in the coming decades. (Economic Commission for Africa, 2009) and (DMR, 2011).

There are effectively two broad approaches by means of which state intervention can be dealt with:

- outright or limited nationalisation, with or without compensation
- a developmental state.

The arguments made in this document tend to favour the more constructive and value accretive role of the developmental state option. However, the developmental state must have the institutional capacity to engage in the industry effectively, and this is probably one of the greatest challenges facing the industry.

South Africa is fortunate enough to have the existing appropriate structures in place to fulfil its role as a developmental state in respect of its mining industry. This implies that these structures, properly capacitated, will enable the government to engage in the industry constructively, as well as creatively and productively manage the rents derived from the industry.

These structures include:

- critical infrastructure
- education and training institutions
- development finance institutions (DFIs)
- sophisticated research and development institutions (RDIs) such as science councils.

This section deals with the role that these institutions play in providing the capacity for a developmental state to optimally develop the minerals sector.



MINERAL-RELATED SCIENCE COUNCILS AS A KEY CONTRIBUTOR TO NATIONAL DEVELOPMENT

STRATEGY

Science councils are institutions that promote advancement and dissemination of knowledge and education in pure and applied science, for the benefit of the public, the government and industry. They provide an integrated approach to knowledge generation, human resource development (HRD), investment in infrastructure and improving strategic management. Depending on the type of institution, mineral-science councils have the following goals:

- develop the innovation capacity of the science system and thereby contribute to socio-economic development
- develop South Africa's knowledge-generation capacity
- develop appropriate human capital for research, development and innovation
- build world-class RDI infrastructure
- position South Africa as a strategic international RDI partner and destination.

RDI provide research and development, technology and innovation services to governments, industry and other clients (Arthur D. Little, 2010). The government has three national research institutes directly linked to the value chain of mineral resource development (exploration, extraction and processing). They are the Council for Geoscience (CGS), the Council for Scientific and Industrial Research (CSIR) and Mintek.

“Knowing what the people's exploitable resources there are is a crucial starting point. The state must dramatically increase investment into geo-survey capacity (Council for Geo- Sciences: CGS) and ensure that valuable rights are concessioned with the optimal developmental returns, through public tender (“price discovery”) or the SMC.” (SIMS, 2012)

Council for Geoscience

The Council for Geoscience (CGS) is the successor of the Geological Survey of South Africa, which was founded in 1912. The council has expertise and facilities to carry out studies relevant to the identification, nature, extent and genesis of ore deposits. It undertakes geological mapping and is also responsible for maintaining the national databases of the country's geo-scientific data and information. The main objective of the organisation is to provide expert earth-science information and services to improve the management of natural resources and the environment for a better quality of life for all.

Most important, the generated geological knowledge of mineral deposits becomes more useful to investors due to the reduction in geological risks, increasing the competitiveness of the country (CGS, 2011). In addition, the increased numbers of new deposits would “expand the cake” providing greater opportunities for access to mineral resources by local entrepreneurs or Historically Disadvantaged South Africans (HDSAs) in the sector. Again, this would also increase potential linkage opportunities with their benefits in the long term in line with beneficiation strategy among other initiatives. The downside of not making new discoveries would invariably result in HDSAs scrambling for aging properties, effectively not creating wealth.

The CGS has acquired a sound knowledge of African geology, and a record of publications of maps on various scales, as well as numerous publications. The organisation has participated in a number of international projects. The CGS actively participates in various regional projects aimed at promoting the economic development of the African sub-continent. Focus areas of the council include the following:

- African development
- growth, rural development and poverty alleviation
- regulatory and stakeholder compliance
- innovation and skills development.

Funding of the CGS is from two sources, which are government grant and commercial consultancy assignments. These commercial clients may either be the public sector or the private sector and the nature of the services and products are dictated by the specific needs of the customer and will be provided on an exclusive basis.

Funding is critical in implementation of planned programmes. The funding for CGS over the past two years is shown below.

Variation in CGS funding

Year	Total Revenue ZARm	State Grant ZARm	Contract Revenue ZARm	Ratio Grant to Total Revenue (%)
2009	254,1	122,6	110,6	43,6
2010	205	142,6	62,6	69,6

Source: CGS Annual reports of 2009 and 2010

The numbers from the CGS annual report released in 2010 indicate a 19 % decrease in total revenue available for the council's operations, even though there was a slight increase in state grant. There was a significant reduction in contract revenue of the order of 57 %, essentially due to the economic recession. Reliance on a greater proportion of contract funding led to profound effects on activities of the council. Core activities were downscaled, except for overheads such as salaries and security.

Such a funding model cannot deliver maximum advantage, particularly in terms of difficulties experienced by the CGS in retaining staff and capacity-building. Consequently, the discovery of new resources is being hindered. Constant and continuous generation of new geological data or information is the lifeblood of a booming mineral sector. To ensure that this is not impeded by erratic resources, the state should provide the bulk of funding.

CSIR Mining Technology

The Chamber of Mines of South Africa established the Chamber of Mines Research Organisation (COMRO) in 1964 to undertake collaborative research for technical development (Progue, 2008). This was the start of the industry's initiative to research the development of mechanisation technologies, particularly for gold operations, as mining depths increased. While most of the research was done by COMRO itself, the research organisation worked with local universities, other research organisations and equipment manufacturers. With sufficient funding from the industry, many inventions were implemented in industry, for example the development of hydraulic technologies.



In 1989, COMRO's budget was reduced due to the redefinition of industry's research co-ordination and the organisation was advised to increase consulting activities. This sounds familiar with the current thrust of the research councils. COMRO was finally absorbed into CSIR as Miningtek in 1993. It undertakes collaborative research funded by the CSIR, government, and the relevant mining houses to solve mining problems. Some notable collaborative programme are COALTECH 2020 to enable South African coal industry remains competitive; SIMRAC for occupational health and safety, and rock engineering; and DEEPMINE initiative to meet demands of mining at depths between 3 km and 4 km (DST Foresight Mining and Metallurgy report). Unfortunately, the new Miningtek took the new funding model of increased consulting activities, which, due to resource constraints, does not deliver cutting-edge technologies to the extent that COMRO did at the outset.

The CSIR receives public funding of the order of 30 % which, like other RDIs, is insufficient for its mandate. It continues to focus on deep level gold and platinum mining, since conditions in South Africa are different from elsewhere in the world. In this case, the CSIR carries out research in:

- applied geoscience
- mechanisation, automation, communications and sensors
- occupational health and ergonomics
- rock engineering.

Mintek

Mintek specialises in various aspects of mineral processing, extractive metallurgy and related technology. It was originally established as a minerals research laboratory in 1934 by the government. Its mandate is to “promote mineral technology and to foster the establishment and expansion of industries in the field of minerals and products derived from them”.

It works closely with the mineral industry, academic institutions and other R&D institutions, providing service test work, process development and optimisation, consulting and innovative products to clients globally. In collaboration with local and international minerals and metal producers, the organisation develops and transfers innovative, new and improved technology to industry for processing, extracting, refining and utilising minerals and mineral products (Mintek, Company Profile, 2011).

Mintek offers a complete range of process development services ranging from preliminary bench-scale investigations to large-scale piloting and integrated flow sheet development in support of bankable feasibility studies. The organisation carries out engineering design, plant construction and commissioning, in conjunction with international partners. Comprehensive laboratory and piloting facilities for sample preparation, milling, smelting, flotation, physical separation, pressure leaching, leaching, and metal recovery and purification are supported by internationally accredited analytical laboratory and mineralogical services (Mintek, Company Profile, 2011).

Revenues available for Mintek in the two preceding years showed some stability and resilience.

Variations in Mintek’s funding

Year	Total Revenue ZARm	State Grant ZARm	Contract Revenue ZARm	Ratio Grant to Total Revenue (%)
2009	359,8	128,7	231,1	36
2010	374,4	136,6	237,8	36

Source: Mintek Annual reports for 2010 and 2011

Again, like the CGS, this model reflects reliance on contract research, as opposed to broad-based research. While this provides a valuable service to industry and demonstrates very effective public-private partnership in R&D, it is seriously inhibiting the pioneering role that Mintek can play in developing the cutting-edge technology the South African beneficiation industry requires for a competitive edge. Unless this is done, it will be difficult to realise government’s ambitions of a thriving beneficiation sector.

Beneficiation is technologically and economically driven. Policies can encourage local beneficiation and laws can discourage the export of raw materials, but if the beneficiated product is not cost competitive or meets increasingly higher technological specifications for modern metals and alloys, the product will simply be unsellable on international markets. Mintek must play a vital role in advancing the technology and cost effectiveness of beneficiated mineral product in South Africa.

Comment on the councils

The science councils are funded by government through the normal parliamentary appropriations, which average less than 50 % of their annual budget, with the balance provided by contract R&D, technology licensing agreements, sales of products and services, and joint-ventures with private sector companies. Consulting or contracting is sometimes advantageous as it assists in solving current industry problems. Ongoing engagement may provide continuous revenues for core functions and proper identification of contracts or projects may meet the objectives or address the RDI’s challenges, and provide an opportunity for technology transfer.

“Technology Development: The country surveys also displayed a strong correlation between investment in minerals technology development (R&D) and success in creating the important mineral linkages clusters (backward and forward). R&D as a percentage of GDP in 2007 was 3.6% in Sweden, 3.5% in Finland, 2.0% in Australia, 1.6% in Norway, 1.4% in China, 1.1% in Brazil, 0.7% in Chile, 0.6% in Malaysia, 0.5% in Botswana, 0.3% in Zambia and 0.9% in South Africa. Our minerals technology development capacity is contracting and this needs to be reversed by allocating a proportion of mineral taxes (proposed RRT) to both earth science (geology) research (CGS) as well as mining and mineral processing technology development. We should set a target for mineral R&D of 3% of the sector’s value addition. In this regard we need to establish a mining technology Science Council (along the lines of the defunct COMRO/Miningtek) by amending the Mineral Technology Act of 1989 (“Mintek Act”) to cover all activities from exploration, through mining and concentration, to smelting and refining. The old COMRO facilities in Auckland Park should be transferred to the new Minerals Technology Science Council that would incorporate Mintek and the remnants of COMRO at the CSIR.” (SIMS, 2012)



Disadvantages of too much emphasis on consulting or contracting include the following:

- derailing national priorities
- forcing the councils to venture all over to meet operating costs, and without focus
- leading to less time devoted to fundamental research.

Because the RDIs have to derive a great proportion of their revenues from contract work, this is detracting from their developmental mandate. For these organisations to fulfil their original mandates and return to their core functions, there has to be a greater proportion of funding from the state. Without this, the RDIs will not be able to adequately contribute towards a developmental state. An appropriate funding model is required to ensure that the councils deliver on their mandates. With proper support, RDIs can help bridge gaps between basic science, policy formulation and technological advancement (Arthur D Little, 2010)

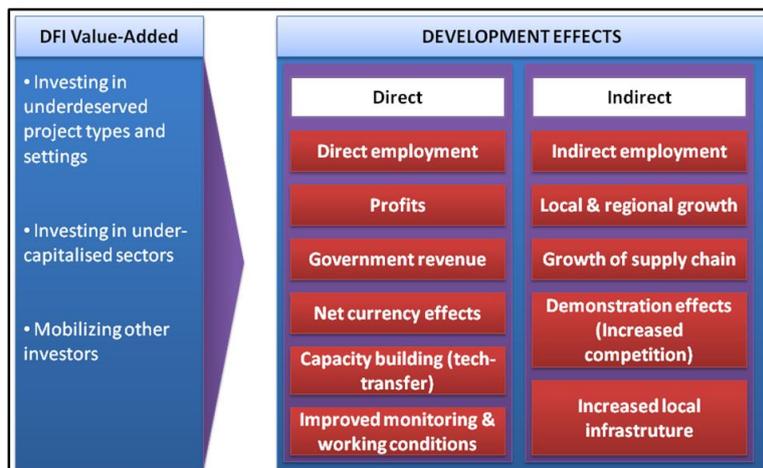
SOUTH AFRICAN DFI INVOLVEMENT IN THE MINING SECTOR

Development Finance Institutions (DFIs) are assigned by government to provide long-term financing to the private sector, with specific value-added development objectives on a sustainable commercial basis. They are specialised investment funds, usually majority owned by the government. They have close relations to the national development institutions, which aim to bridge the gap between commercial investments and government development aid and so contribute to sustainable economic growth (Dalberg, 2010).

The boards of the DFIs constitute a mix of private and public sector representatives with the necessary expertise. These include representatives from the financial and legal sector such as private equity/venture capital, entrepreneurs, politicians and international development agencies. DFIs tend to provide funding for longer periods of time than do commercial banks, based on a long-term vision and investment commitments rather than emphasis on short-term returns. They have relatively small and flexible structures and streamlined organisations, with authority deputised to investments officers (Dalberg, 2010).

They play a catalytic role by taking a major stake in project risks in the initial stages. DFIs generate development ripple effects both directly in their projects and indirectly in the broader community. The key impacts include jobs, government revenue, project profit and net currency effects. Other advantages are improved working conditions, capacity building and enhanced environmental standards. DFIs emphasis on socially responsible and sustainable investment promotes positive economic developmental impact (Dalberg, 2010). The next figure shows the direct and indirect development effects of DFIs.

Direct and indirect development effects of DFIs



Source: (Dalberg, 2010)

South Africa's vast natural resources provide numerous opportunities. The challenge lies not only in accessing the resources, but financing their development and improving the socio-economic conditions of the people in that region. Especially when traditional sources of funding are scarce due to the recent global economic crisis, the DFIs need to play a greater role by increasing investment when other financiers are reducing their exposures (Industrial-Development-Corporation, 2002).

There are two DFIs which are involved in the South African mining sector. They are the Development Bank of Southern Africa (DBSA) and the Industrial Development Corporation (IDC). Their roles include:

- taking a developmental approach as opposed to an emphasis on maximising returns
- identifying, developing and financing projects to meet national objectives
- providing financial products not readily available such as venture capital, longer-term finance and project
- encouraging private sector development by acting as a catalyst
- taking and managing a higher risk profile on projects (Dalberg, 2010 and IDC, 2006).

Industrial Development Corporation (IDC)

The IDC was established in 1940 as a self-financing, national development financing institution whose role is to contribute to economic growth and development through its financing activities. The primary objectives of the institution are to contribute to the creation of balanced, sustainable economic growth in the country and on the rest of the African continent. It promotes entrepreneurship by building competitive industries and enterprises based on sound business principles. Core strategies of the IDC are the following:

- serving as a catalyst for balanced, sustainable development
- identifying and supporting opportunities not addressed by the market
- providing risk capital in partnership with the private and public sector (Industrial Development Corporation, 2006).(Industrial Development Corporation, 2011).

The approach of the institution is guided by two frameworks, namely the NGP and the Industrial Policy Action Plan (IPAP).



The NGP entails job creation, inequality and poverty alleviation through government policies. It takes into account the broader global factors that impact on the country. The NGP also outlines a path for South Africa to achieve a cohesive, developed, inclusive, green and equitable economy.

The IPAP2 lays out in detail the time frame and key actions for the implementation of the industrial policy. Three components of the IPAP involve a range of sector actions, a set of cross-cutting actions for industrial policy, and measures to improve capacity of the government to implement industrial policy. The action plan aims to promote long-term diversification and industrialisation, beyond traditional commodities and services, by expanding production in value-added sectors with high employment and growth opportunities (Industrial Development Corporation, 2011).

The IDC has played a major role in the establishment and development of such major companies as Richards Bay Minerals, Iscor, Foskor, Alusaf and Corridor Sands minerals project. The IDC has invested risk capital in varying proportions of shareholding from a meagre 3 % in the case of Sasol to 100 % for Phalaborwa Phosphate Mines. This gives the IDC a certain measure of expertise and experience in financing of risk investments. It has become an ideal financing institution for the minerals sector to either go it alone or in partnership with others. The South African government envisages the IDC playing an increasing role in the development of the Southern African Development Community (SADC) countries (for example in Namibia's Rössing Uranium and the Mozambican Mozal Aluminium Smelter). (Economic Commission for Africa, 2004).

The IDC was established to catalyse economic development and did this for many years. At one point it played a leading role in implementing government policies and addressing the development needs of the country. However, the objectives, strategies and tactics of the IDC have changed over time and more recently the structure of the IDC has increasingly resembled that of a commercial bank, rather than a development bank, including the remuneration structures of its staff. To fulfil its mandate, the bank should invest in large projects that are critical to economic development but difficult to fund through commercial markets. Once the enterprise is sustainable and profitable, it should exit and use the profits for new projects. This does not appear to be occurring to the extent that it should.

On Sovereign Wealth and passive funds

“A Regional Development Fund to invest in regional trade infrastructure to facilitate intra-regional trade. In 2010 the region overtook the EU as our largest customer for manufactured exports. However, our access to the booming regional market is severely constrained by poor or non-existent trade infrastructure. Contacts awarded by the fund should be restricted to regional construction companies and services providers only. The fund should be situated in the DBSA.” (SIMS, 2012)

Development Bank of Southern Africa (DBSA).

The DBSA is a DFI entirely owned by the South African government and focuses on large infrastructure projects within the private and public sectors. The main objectives are the promotion of economic development and growth, institutional capacity building, human resource development, and the support of development projects in the region. The bank plays a multiple role of financier, partner, strategic implementer, advisor and integrator to mobilise finance and expertise for development projects (DBSA, 2010). The DBSA provides project finance to viable mineral projects, based on commercial conditions.

In terms of mineral development, the DBSA could be integrally involved with the funding of infrastructure needs of mines and mine communities. With the long-term nature of mines, the bank would be assured of a return on its investment (unlike the municipalities), and it would have a direct say in the concurrent diversification of the mining infrastructure to promote economic diversification and infrastructural sustainability. The investment banking commitments of the bank for 2010/11 (DBSA, 2011) were as follows:

- Mining 14 %
- Agriculture 01 %
- Housing 55 %
- Energy 17 %
- ICT 13 %

It would be difficult to comment on the size of the desired allocation to the mineral sector as this would need to be balanced with other needs.

National Empowerment Forum (NEF)

The NEF was established to promote and facilitate black economic equality and transformation. The mandate and mission of the NEF is to be the catalyst of BBBEE. It develops, enables, promotes and implements transformation solutions and innovative investment to advance sustainable black economic participation in the South African economy. The NEF plays a catalytic role through financial and non-financial support, which will accelerate the meaningful participation of black individuals, communities and businesses (National Empowerment Fund, 2011).

The objectives of the NEF include:

- to foster and support business ventures pioneered and run by black enterprises
- to improve the universal understanding of equity ownership among black people
- to contribute to the creation of employment opportunities
- to encourage the development of competitive and effective equities inclusive of all persons in South Africa
- to encourage and promote savings, investments, and meaningful participation by black people
- to provide black people with the opportunity of, directly or indirectly, acquiring shares or interest in private business enterprises, state allocated investment (SAIs) that are being restructured or private business enterprises (National Empowerment Fund, 2011).

There is no evidence of the viability of this source of finance for the high levels of investment required for the minerals sector.

Comments on the DFIs

Capital is a critical component in the realisation of the various stages of the mineral value chain. The DFIs provide alternatives to fully foreign-owned private capital. Ideally, maximum benefits from mineral resources development may potentially be obtained by local investment capital. The challenge remains to increase the capacity and capability of meeting the requirements of an increasing investment capital appetite.



Van Zyl (2011) states that, while projects' considerations by DFIs remain financial and commercial sustainability, the following development aspects are considered:

- incorporating infrastructure investments in mining transactions
- assisting with lowering political risk in projects by facilitating government support
- ensuring that infrastructure serves a larger group of end-users
- negotiating as part of the loan agreement that small contractors be used where possible
- facilitating with government better use of local labour and local materials during construction
- improving the regional integration of a project by infrastructure links especially power.

In the face of growing calls for government interventions in the mining industry, the role of DFIs will continue to feature more prominently. It becomes prudent then to call for strengthened or improved capacities of these institutions. These institutions should be encouraged to deliver on the many potential benefits rather than pursuing purely financial and commercial interests.

ENHANCING THE CAPACITY AND EFFECTIVENESS OF THE HUMAN CAPITAL OF THE SECTOR

It is widely believed that the development of skilled human resources and the strengthening of the technological infrastructure are two of the key factors in improving the competitiveness of the mineral sector. It can be argued that the general availability of quality education and the equitable access to new technology are necessary but not sufficient to enable a South African mineral sector to become and stay competitive in the global market. There is a need to enhance the capacity and effectiveness of the human capital of the mineral sector. There are a number of elements that affect capacity and effectiveness of the human capital in the mineral sector. These are education, skills development, training, governance, management capacity, financial resources, service delivery, human resources, and promotion of knowledge and skills required by the sector to acquire greater prosperity. (Economic Commission for Africa, 2009) and (Carlson, 2001).

From a macro-economic viewpoint, human capacity development is required for better management of the industry, including the ability to mobilise, allocate and utilise human and material resources in a productive manner across different institutions, organisations or companies in the mineral sector. At a micro-level, human capacity is very important for different activities across segments of the mining value chain (such as mineral extraction, processing, beneficiation, project management and administration). (Carlson, 2001) and (Economic Commission for Africa, 2009).

Challenges

One of the key challenges of human capital in mineral development is meeting the skills demands. Despite South Africa's great mineral resource endowment and some improvements in its growth performance, certain aspects of the mineral sector are characterised by weak human and institutional capacity in carrying out its exploitation, and formulating and implementing development programmes and strategic priorities. The following are some of the reasons which have led to the limited availability of highly-skilled local manpower in the South African mining industry:

- inadequate basic teaching, training and research facilities as well as traditional mining sector institutions such as science councils, mineral administration departments, education and training and other R&D organisations
- insufficient financial support for students to pursue postgraduate studies

- lower remuneration packages for employees than elsewhere in the world
- insufficient mentoring and succession planning in companies providing opportunities for new recruits
- lack of co-ordination between resources (finance, skills and facilities) and requirements of development at sub-regional, regional and continental level (Economic Commission for Africa, 2009).

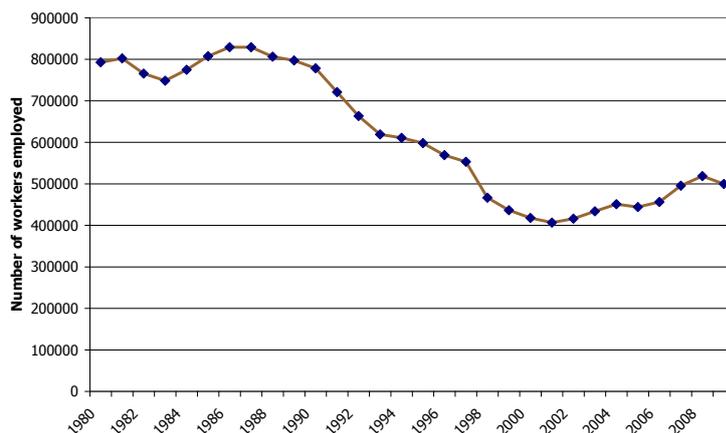
Enhancement of human capital

“The South African mining industry should strengthen its means for generating capacity when and where it is needed to meet its goals. The success of future capacity building in the mineral sector will depend mainly on the commitment and initiatives of mining companies, government and institutions in the country.” (Norman, 2010).

Since 1994, investment in resource-based projects has accounted for half the recorded formal growth of the sector employment. This is likely to increase over the coming years as new projects come on-stream and proposals for upgrades and expansions to current projects are completed. Despite this, direct employment in the mining sector has been on a gradual decrease, and shown in the next figure (Economic Commission for Africa, 2004).

Prior to the 1994 democratic elections, South Africa developed a racially structured and exclusive occupational labour market for artisans and technically trained para-professionals, such as technologists and technicians. Key role players in these arrangements were the large mining and manufacturing employers and state-owned enterprises, technical colleges and white trade unions. These institutions produced large numbers of artisans during that time. A global shift towards an unstructured and vast external market has replaced the structured labour market approach. In this new setting, labour markets are flexible and unregulated, providing no guarantee for job placement. Work placements are currently a matter of individual choice and not a structural or institutional arrangement, as was the case for certain occupations in the past (Norman, 2010).

Employment trends in the mining sector



Source: (MQA, 2011)

South Africa effectively has two economies which are the primary and tertiary sectors which respectively employ unskilled, skilled and highly skilled (knowledge worker) individuals. The importance of supplying and matching skills to required key positions is crucial to the success or failure of both businesses and the



mining industry. Production costs are continuously increasing. For the mining industry to survive and remain financially viable, cost-effective and more efficient technologies are being explored and implemented. Sufficient and competent technical skills, in the form of artisans, technicians and engineers, are required. The mining industry is currently experiencing a shortage of these skills (Norman, 2010).

Scarce skills according to occupational group – March 2010

Skill needs	Deficit %
Technicians and trades workers	46,7
Machine operators and drivers	28,9
Professionals	14,5
Directors and corporate managers	9,1

Source: (MQA, 2011)

This clearly shows that South Africa has a skills shortage in technicians. Ironically, these are the skills qualifications that have a higher propensity to start and own small businesses, and have the potential for job creation. The most significant challenges facing the supply of scarce skills currently into the mining sector include the following: the poor quality of secondary schooling, particularly in the areas of mathematics and physical science.

Levels and trends in pupil achievement for SACMEQ countries

	Pupil reading score			Pupil mathematics score		
	2000	2007		2000	2007	
Botswana	521.1	534.6	▲	512.9	520.5	▶
Kenya	546.5	543.1	▶	563.3	557.0	▶
Lesotho	451.2	467.9	▲	447.2	476.9	▲
Malawi	428.9	433.5	▶	432.9	447.0	▲
Mauritius	536.4	573.5	▲	584.6	623.3	▲
Mozambique	516.7	476.0	▼	530.0	483.8	▼
Namibia	448.8	496.9	▲	430.9	471.0	▲
Seychelles	582.0	575.1	▶	554.3	550.7	▶
South Africa	492.3	494.9	▶	486.1	494.8	▶
Swaziland	529.6	549.4	▲	516.5	540.8	▲
Tanzania	545.9	577.8	▲	522.4	552.7	▲
Uganda	482.4	478.7	▶	506.3	481.9	▼
Zambia	440.1	434.4	▶	435.2	435.2	▶
Zanzibar	478.2	533.9	▲	478.1	486.2	▶
Zimbabwe ¹	504.7	507.7	▶	xx	519.8	xx
SACMEQ	500.0	511.8	▲	500.0	509.5	▶

▲ Increased by 10 points or more ▶ Minimal change (less than ±10) ▼ Decreased by 10 points or more

¹Zimbabwe did not participate in the SACMEQ II Project (2000) and the value given in grey (reading) is from the SACMEQ I Project (1995).

Source: (SACMEQ, 2010)

The previous table from research conducted by the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) shows that by 2007 South Africa was behind Botswana, Kenya, Mauritius, Seychelles, Swaziland, Tanzania and Zimbabwe on both reading and mathematics scores for primary school children in SADC countries. South Africa's scores are below average for the regions despite it being one of the richest countries in terms of GDP per capita and its education and training budget.

Also, the poor image of the sector does little to attract high quality school-leavers, and then this is compounded by the difficulty in retaining staff in remote areas away from the cities. Other issues needing to be addressed are the difficulties that many HDSA students face in accessing study financing, and also the difficulties that University of Technology students face in accessing the workplace-based training necessary for graduation (MQA, 2011).

The South African mining industry is pursuing greater productivity targets through the introduction of new technologies, the use of production teams, increased worker mobility and multi-skilling. Over the years, the supply of technical skills and professionals has not kept up with demand due to the reduced number of graduates, immigration, inadequate and uncompetitive rewards. Engineering graduates are also highly sought after by other economic sectors. Technically skilled professionals have left the industry at a higher rate than those entering the tertiary institutions and the industry through immigration. Insufficient or lack of technical skills capacity is not only hampering the development of the industry, but also of the country (Norman, 2010).

In terms of graduate engineers, concerted effort is required to develop sound training that stimulates young graduates and increases the capacity required. Few companies carry out structured work-place training any longer. Owing to pressure on profit margins and little time or capacity to train young staff, all aim at quickly trained or fast-tracked staff, meaning that they want the product but are not prepared to take responsibility for the process. As a result, job 'hopping' and poaching of trained staff are endemic, especially among HDSAs. This statement is applicable across all engineering disciplines within the South African mining industry. To be appointed as an engineer within the South African mining context, after acquiring a tertiary qualification, engineers then need the GCC (Government Certificate of Competency) as a pre-requisite. The GCC has a high failure rate with the pass rate of the exam which is written bi-annually, being approximately 11 % (Norman, 2010).

The government needs to pro-actively address the issue of skills development, and also the issue of how to retain existing skills to bridge the gap until new suitable, experienced people have been developed. In addition, immigration regulations need to be restructured, making it easier to bring in specialist skills. Furthermore, incentives should be provided for private companies to invest in technical skills development (Economic Commission for Africa, 2004). Mining companies must also be involved in a range of training and development initiatives that focus on developing the skills of their current workforce. Initiatives are required to supplement and build on the training that supplies new skills into the sector (MQA, 2011).

Government policies and regulations shape the technical skills landscape in aligning the supply and demand of labour. Training offered to the unemployed should form an important constituent of active labour market policies (ALMPs). The links between the demand and supply of qualified labour should also be strengthened by ALMPs. A key policy initiative in making active measures more effective is to ensure a linkage between training, job placement and unemployment benefits.

“Investing in the Development of Technical Skills for the MEC

It is proposed in this report that approximately 12.5% from the proceeds of the resource rent tax be used for investment in the development of technical skills for the mining sector. The specific activities to be funded under this proposal are the following:

- The training and remuneration of Maths and Science specialists to assist in Maths and Science Education in primary schools across the country where such need is identified.

The precise mechanism for implementing this should be worked out in consultation with the Ministries of Basic Education, and Higher Education and Training.

- Grants/loans for Engineering and Science students to be administered through the National Student Financial Aid Scheme (NSFAS). Tertiary training should be free in critical technical areas.

- Financial support to Engineering Faculties based on the number of undergraduate students graduating and registering with ECSA.

- Financial support to Engineering Faculties for post-graduate studies.

- Grants for Engineering and Technician learnerships through the appropriate Sector Education and Training Authorities (SETAs).” (SIMS, 2012)



Conclusion

South Africa has the requisite structures to realise the full potential of its mineral resources. Infrastructure is critical in the viability and competitiveness of the country's mineral sector. All elements for upgrading the requisite infrastructures are present. Collaboration between government, industry and labour is important for this to be achieved. What is most important is for government to provide the necessary environment for such collaboration between the stakeholders and provide bold and effective leadership in the sector.

Chapter 19 Community management of resources: the tension between state stewardship and community ownership of mineral rights

The whole question of resource nationalism is premised on the perception of ownership of natural resources on the part of a country's people and the anticipation of general benefit from these resources. Within the ambit of potential for conflict between mining companies and communities, a source of tension is the perception that the mining company is garnering disproportionate benefit from the mining of minerals underlying communal lands.

Communities see their communal land and the benefit that they generate as being theirs and not belonging to the nation. This creates a fundamental democratic issue. On the one hand, the communities believe that their birth-right was taken from them on colonisation and that they have a right to restitution, which includes benefits from the land. On the other hand, there is the opinion that because a community, by sheer dint of luck, happened to be located on land that was endowed with mineral wealth this should not preferentially advantage them. The reason is that these minerals belong to the nation.

This fundamental tension is exacerbated when that community successfully derives benefit. One of the key tenets of resource nationalism is the extraction of greater rents from the exploitation of resources by the State and the expectation that the broader community will derive tangible benefit. The national treasury budgetary allocation process is orientated towards a common pool, and there is an understandable reluctance on the part of treasury to ring-fence revenues from a sector for sectarian benefit. Consequently, whatever the quantum of increase in benefit derived from additional rents for the industry, there will be no tangible benefit to ordinary people that they will be able to associate with mining. Furthermore, with Government's poor record of service delivery, if there were identifiable mining benefits being allocated for specific causes, the effect and efficiency of disbursements may be questionable. It could then be unlikely that the popular frustration with the perceived lack of benefit will abate and political credit for having nationalised mines for broad based benefit will be forthcoming. International experience shows that Government is not necessarily the most efficient agency for the disbursements of tangible benefit from mining.

Properly managed, direct community benefit from minerals does offer tangible and measurable benefit while, at the same time, delivering the nations share of its rents. The key to this tangibility is to corporatise and efficiently manage community natural resource assets, where they identifiably exist and prove to be attributable to that community. Part of the revenues derived commercially from these benefits may then be reinvested in a diversified investment portfolio to mitigate risk and ensure sustainable economic benefit from its mining base. As exploitation of minerals is not sustainable, the benefit can only be rendered sustainable through reinvestment in other more sustainable activities. The remaining portion of the profits from mining and an equivalent portion of dividends from the diversified investment base are then cascaded down for direct, tangible community benefit. With this model, as the investment grows with time and compounding reinvestment, so does the amount of money going back into to the community concerned.

The Royal Bafokeng Nation (RBN) is a key example of this model, and its success deserves close examination as an alternative to the less tangible general distribution model.



Historical background

The historical background to the Bafokeng is absolutely key as it shows the results of a continued and concerted strong leadership over more than a century. This foresight and strength resulted in the acquisition of communal land over a long period of time and then turning to account for the broader benefit of the community. The area owned by the RBN covers an area of 1400 km² in South Africa's North West Province, and is home to approximately 300 000 people, not all of them Bafokeng. The Bafokeng people date their arrival in the Rustenburg valley to around 1450 (Hall S. A., 2008), (Huffman, 2007) and (Mbenga, 2003).

While the community forms an integral part of the state's system of provinces, districts, and municipalities, the RBN is also governed by a kgosi (king), a hereditary role (usually the eldest son of the previous kgosi). Christianized since the mid-19th century, and having long-abandoned polygamy, the Bafokeng community has seen few serious succession disputes over the past five or six generations, with a direct father-son line leading back over the past 15 dikgosi (Comaroff J., 1978). The present leader of the Bafokeng is Kgosi Leruo Molotlegi, a 42-year old architect/pilot who assumed the role of kgosi after his brother, Kgosi Lebone II died in 2000.

The Bafokeng have owned their land by title since the late 19th century. They were thus able to maintain their geographic integrity despite incursions by waves of white settlers, the first and second Anglo-Boer wars, apartheid-era laws, an oppressive Bantustan regime (Bophuthatswana under Lucas Mangope), and corporate raids on their mineral resources.

The founder of the modern Bafokeng Nation, Kgosi Mokgatle (1834-1891), the present kgosi's great great grandfather, acquired his status not because he was the first Bafokeng kgosi (he wasn't), but because he focused his 57-year reign on securing the community's legal hold on its land. Kgosi Mokgatle realized that it was not enough for the Bafokeng to own their land in the traditional sense. In the face of increasing incursions by Afrikaner farmers starting in the 1840s, Mokgatle decided that the community must begin to buy the title deeds to their land if they were to avoid total dispossession (with advice from Paul Kruger, later to become the first President of the Transvaal Republic). (Coertze 1988).

To raise the cash to purchase select tracts of land, Mokgatle sent regiments of Bafokeng men to surrounding farms and the newly discovered diamond fields in Kimberley in the late 1860s and 1870s. A portion of the wages earned by these men was placed in a land acquisition fund (Bergh, 2005). With the help of a German missionary (Christophe Penzhorn from the Hermannsburg Missionary Society who were German Lutherans), who agreed to buy the land in his name, Kgosi Mokgatle began a historic process of acquiring the ancestral lands of the Bafokeng. This skirted the laws that prevented blacks from owning land).

This history of land acquisition by the Bafokeng highlights two things. First, the Bafokeng established themselves as a private, corporate land owner as early as the late 19th century. Bergh points out that by the beginning of the 20th century, almost 20% of the land owned by blacks in the Transvaal was owned by the Bafokeng (2005:115). Second, although there was subsequent contestation over who rightfully owned Bafokeng land, the public and well-documented process by which the Bafokeng legally obtained their land put them in a strong position to assert their status as a private landowner for generations to come.

Platinum was discovered on Bafokeng territory in 1924 (Mbenga, 2010). As owners of the land, the Bafokeng began leasing parts of their territory to various companies, including Gencor now known as Impala Platinum, the world's second largest platinum mining company. As early as 1953, the Secretary of

Mines wrote that “It would appear that the ownership of both the surface and mineral rights in respect of the land in question vests in the said Bafokeng Tribe and the land therefore ranks as private land for the purposes of the mineral laws” (History of the Royal Bafokeng [2003], emphasis added). The Bafokeng, in other words, were able to control their land and its resources as a private landowner under the prevailing Roman-Dutch code.

The President of Bophuthatswana (the Tswana “homeland” recognized by Pretoria in 1977), Lucas Mangope, saw the Bafokeng as his rivals and enemies, and presumed to negotiate mining contracts directly with Impala Platinum on behalf of the Bafokeng. This set in motion a protracted fight between the Bafokeng and the Bophuthatswana regime on the one hand, and the Bafokeng and Impala Platinum on the other. The case against Impala, which hinged crucially on the issue of ownership of the land, and the process by which any of it could be leased to an outside entity, was settled out of court in favour of the Bafokeng in 1999, nine years after it was initiated. This case was a landmark decision against a major mining company in South Africa, and earned the Bafokeng the nickname “The Tribe of Lawyers.”

In 1994, the homeland system went the way of apartheid, and the ANC-led government became the next in the long line of regimes to threaten Bafokeng control of their land and its resources. The new government’s Minerals and Petroleum Resources Development Act (No 28 of 2002) was an attempt to undo the country’s longstanding legal principle that vested mineral rights in the land owner. The Act, which came into force on May 1, 2004, seeks to expand opportunities for historically disadvantaged South Africans (HDSAs) to enter the minerals industry by implementing new mining rights. It also reiterates the South African Freedom Charter of 1950 in its preamble, stating “South Africa’s mineral and petroleum resources belong to the nation and that the State is the custodian thereof” (South African Government Gazette).

Because the Bafokeng were already using royalties from mining to uplift the surrounding community, the Bafokeng’s lawyers argued successfully that their revenues should be exempt from nationalization for a period of five years, at which point the exemption could be reviewed. Another challenge came in the form of the Communal Land Rights Act of 2004, which sought to shift control of communally administered land from Tribal Councils to government-controlled Land Rights Boards. To the extent that the Act replaces traditional authorities and the customary laws and structures they use to administer land with more centralized and party-affiliated structures under the control of the central government, the Bafokeng opposed this legislation from the outset. The Act was declared unconstitutional in mid-2010 (Cook S. , 2004), and the administration of privately-owned, communally-administered land in the Bafokeng territory has been largely unaffected.

One provision of the Communal Land Rights Act was very much aligned to Bafokeng strategy, and despite the law having been repealed, the Royal Bafokeng Administration (RBA) continues to pursue this cause. According to the Act, communally held land is to be transferred into the name of the community that occupies it, effectively repealing the practice of registering communal land in the name of the government. The Minister’s Trusteeship over land is an artefact of racist and segregationist policies, and is therefore anachronistic in contemporary South Africa.

In the case of the Bafokeng, “the government officials in the Native Commissioner’s office, the Secretary for Native Affairs, the Minister of Native Affairs and the Bafokeng all regarded the Bafokeng as the owner of the land,” and, further, “there is no recorded instance where the government of the Republic of South Africa sought to deal with Bafokeng land contrary to the wishes of the Bafokeng” (History of the Royal Bafokeng, Their Acquisition of Land and the Law Related Hereto n.d.). The Bafokeng therefore maintain that the change in legal ownership from the state (The Minister’s Trusteeship) to the community was common logic



given the democratisation of the country and the right of displaced South Africans to restitution of lands removed from them after 1913⁶².

The RBA has therefore applied to have Ministerial consent removed from the administration of Bafokeng land. Interestingly some Bafokeng have opposed the application, suggesting a preference for government oversight of the administration of the land (Bafokeng Land Buyers Association, 2010). The outcome of the application is pending, at the date of writing.

What is clear is that the history of Bafokeng land ownership and the worldwide platinum boom of 1996-2008 is a very powerful combination.

The Bafokeng asset base

Under the leadership of Kgosi Leruo, the RBN (through its Council and Kgotha-kgothe) established Royal Bafokeng Resources (2002) to manage the community's mining interests (platinum and chrome), and Royal Bafokeng Finance (2004) to develop a non-mining investment portfolio. In 2006, the two companies were combined to form Royal Bafokeng Holdings (Pty) Limited, which manages the community's overall investment strategy and portfolio.

RBH is mandated by the community (through their representatives in the Bafokeng Supreme Council) to invest the communal purse for maximum return and sustainability. In its first few years, RBH has been extremely successful. In 2005 the community's asset base was worth R8,8 billion. Two years later the value was R33,5 billion (approximately US\$4,15 billion). Most of this growth can be attributed to the decade-long "platinum boom" which saw the price of platinum rise from us\$421/oz in 1996 to over us\$2 000/oz in 2008. Although the global economic recession that began in mid-2008 took a toll on platinum (an important component in the manufacture of catalytic converters in cars), the RBH portfolio nevertheless outperformed most major stock indexes, and earned the community a 30 % return on investment in its first three years.

Although RBH owns stock in approximately twenty companies at the time of writing, about 85 % of its dividends come from Impala Platinum. The other 15 % comes from smaller dividend streams and interest on R5 billion in cash holdings. This cash is both an asset and a liability. While dividends are not taxed in South Africa, interest earned on cash in the bank is⁶³. Given its levels of cash under management, RBH would have faced a 40 % tax on its interest income (or approximately R220 million of the R550 million it earned in 2008) if it were not deemed a *universitas persona*, a not-for-profit organization that operates in the interest of, and benefit to, the community.

The South African Revenue Service, under the direction of the South African Treasury, has long sought to redefine the RBN as a corporation, rather than a *universitas persona*, on the grounds that it is a for-profit undertaking. The RBN's response is that the developmental arms of the Nation, principally the Royal

⁶² The Natives Land Act, 1913 (subsequently renamed Bantu Land Act, 1913 and Black Land Act, 1913; Act No. 27 of 1913) was an act of the Parliament of South Africa aimed at regulating the acquisition of land by "natives", i.e. black people. The Act formed an important part of the system of Apartheid and is of importance for both legal and historic reasons. The Act was the first major piece of segregation legislation passed by the Union Parliament, and remained a cornerstone of Apartheid until the 1990s when it was replaced by the current policy of land restitution. The act decreed that only certain areas of the country could be owned by natives. These areas totalled only 7 % of the entire land mass of the Union. The Act created a system of land tenure that deprived the majority of South Africa's inhabitants of the right to own land which had major socio-economic repercussions.

⁶³ Dividends Tax will be introduced in South Africa with effect from 1 April 2012. From that date STC will fall away and be replaced by a final withholding tax of 10% on the shareholder (Deloitte, 2011).

Bafokeng Administration (RBA) and the Royal Bafokeng Institute (RBI), effectively reduce the burden on the state to provide basic services and infrastructure to the Bafokeng people, and since the state doesn't tax itself, it must not tax the RBN.

It is in this context that a philosophical debate is being arranged with National Treasury and SARS to persuade them to change the VAT legislation to accommodate communities that perform functions which would otherwise be performed by Government particularly because they would be funding their budgets. (From the Treasury Dept. report to the Bafokeng community at Kgotha-kgothe, March 2008).

This debate is one of the reasons why RBH converted its royalty agreement with Impala Platinum into shares in 2007. Subsequent to the “shares-for-royalties swap” with Impala, the Royal Bafokeng Nation now only receives royalties from the Bafokeng Rasimone Platinum Mine, a 50/50 joint venture between the RBN and Anglo Platinum (Amplats). If challenged by the state again, the Bafokeng lawyers and financial advisors will argue that the living standards of community members will decrease if the royalties are expropriated by the state, constituting a breach of the Constitution's expression of the “real rights” of individuals living under the protection of the state. In this negotiation over taxes, the Royal Bafokeng Nation explicitly positions itself as a community, and a not-for-profit enterprise assisting the state with its responsibilities, whereas the state would earn more tax revenue if it could convincingly argue that the RBN is a private company.

Royal Bafokeng Holdings (RBH) and black empowerment

In the current investment environment in South Africa, the RBN's status as a community investor, and in particular a “black” community investor, is again highly salient. Black Economic Empowerment (BEE) refers to a set of regulations in South Africa that determines how companies operating in specific sectors (mining, telecommunications, construction, etc.) must transform their shareholder base and governance structures to include more “previously disadvantaged” (understood to include black, coloured and indian) people (HDSAs). State-awarded tenders are only open to those companies that comply with their sector's transformation charters by selling shares to black investors or broad-based investment groups (such as RBH), and appointing black managers and directors.

Large corporations in South Africa have thus, since 2005, been seeking “empowerment partners” to meet their targets. Many of these partners have been members of the small black elite who were already well connected politically, and were able to amass huge personal fortunes through these new laws. Vocal critics of the policies have thus pushed through reforms to the original laws, in an effort to pioneer more broad-based black economic (BBBEE) empowerment practices (Hamann, 2004), and (Rajak, 2009).

In contrast to these few wealthy individuals, RBH is a black-owned investor whose vision is to become the world's leading community-based investment company. RBH regards this vision to be “social capitalism” using the mechanisms of the free market to benefit the collective⁶⁴. There is a further perception among the Bafokeng that corporate South Africa is, by and large, very conservative, and prefers traditional investors to broad-based investment groups like RBH⁶⁵. Individual investors can be wined and dined and invited for a round of golf to discuss corporate strategies. Group investors are seen as unpredictable and harder to influence. RBH has a distinct advantage over other BEE empowerment partners. It pays cash. Where other investment groups rely on loans and other forms of leveraged funds that can be complicated and time consuming, RBH has sufficient cash on hand to vie for major investment deals in the

⁶⁴ Statement by Niall Carroll, Chief Executive Officer of RBH

⁶⁵ Statement by Thabo Mokgatla, Executive in charge of development for the Royal Bafokeng Nation



telecommunications, financial services, and energy sectors. Most of the big empowerment deals in the mining sector have been completed so RBH is looking elsewhere, including offshore, for further substantial investment and to hedge the South African country risk.

There is however downside to the success of RBH as there is a perception that the Royal Bafokeng Nation is “over-empowered.” In other words, RBH is being lumped together with Patrice Motsepe (the first African to make the Forbes 100 list) and Tokyo Sexwale (sometimes called the South African Donald Trump), who have grown their wealth by becoming empowerment partners to mainly white South African companies. The difference is that RBH is not run on behalf of a small group of individual investors, but rather under the guidance of 300 000 shareholders. This is what is meant by broad-based investment, the assumption being that all 300 000 people benefit from the dividends from these investments.

This is a persistent theme in policy debates within and around the Royal Bafokeng Nation. To date, the benefits of being “the richest tribe in Africa” have been communal and focused on service delivery and infrastructural rather than individual financial benefit.

Over 95 % of Bafokeng houses are electrified with all the formal community stands receiving reticulated water. Schools and clinics are better than the government norm, and there are more paved roads and community halls, and many other direct benefits. Almost ironically given the popular perception of lack of communal benefit from mining revenues in the rest of the country, at the kgotha-kgothe and other public Bafokeng gatherings, there is a palpable sense of frustration at the people not having more direct access to the communal purse.

There is a traditional cultural basis for this argument. From the perspective of the more communally-minded, the Kgosi is responsible for the well-being of the Nation, and if the Nation is suffering, something must be done. This idea resonates with the political economies of pre-capitalist societies where the chief/leader was expected to maintain a surplus of grain/herds of cattle, in the event of a shortage among the people. Through patron/client relations, and networks of sub-chiefs (dikgosana), the surplus could (and should) be distributed as necessary to prevent starvation in years of poor rainfall or disease. In the current context, the implication is clear. It is unacceptable to many that the RBN’s investment portfolio is valued in the hundreds of millions of dollars, whereas 31 % of people over the age of 18 report being ‘unemployed and looking for work’, and the self-reported income of households is R2 500 per month (Bekker, 2011).

Leadership, governance, administration and service delivery

The key to the Bafokeng success is strong leadership. The assets were built on the vision of previous leaders, and wisely and uncorruptedly managed by the incumbent leadership which is headed by Kgosi Leruo. Despite being a monarchy, there is a high level of democracy in the leadership structure of the Bafokeng. The Kgosi relies on a complex of traditional and corporate structures to lead and run the RBN. There are hereditary headmen (dikgosana) who attend to people’s day-to-day matters in each of the 72 wards (makgotla) that make up the 29 Bafokeng villages. These headmen are assisted by their wives (bommadikgosana) and by wardmen (bannakgotla). In line with the Traditional Leadership and Governance Framework Act (No. 41 of 2003), the law governing how traditional authorities may operate, the Bafokeng Traditional Council is made up of eleven community members, five elected and six appointed by the kgosi. The Traditional Council and the Council of Dikgosana together make up the Bafokeng Supreme Council, chaired by the Kgosi, which debates and ratifies all major financial and policy matters for the Nation.

The community's infrastructure and basic services are managed by the RBA, effectively a local municipality. RBH, based in Johannesburg, manages the community's mineral assets and investment portfolio, and the RBI serves as an education reform agency for the region. The professionals in the Office of Kgosi (Treasury, Governance, and Planning) manage the strategic alignment between the various entities, and monitor and communicate the Nation's overall progress towards its stated goals to both internal and external audiences.

The governance structure of the RBN is not unusual in the communities recognized as "traditionally-governed" in South Africa. A patriarchal, hereditary system headed by a kgosi and divided up into wards is common to Tswana-speaking communities in both South Africa and Botswana (Schapera I. , 1952) and (Schapera & Comaroff, 1991).

The principal advantage enjoyed by the Bafokeng is that they own their land and have successfully exercised their rights to both its surface and mineral assets. The Kgosi and his espouse "Vision 2020," the overarching vision of the Royal Bafokeng Nation, that strives to create an "enabling environment" (read: education, good security, availability of jobs) so that members of the RBN can prosper as individuals by the second decade of the 21st century.

Dependency on a paternalistic regime, in other words, is no longer a necessary part of the plan. Achieving such a goal is a long-term process, however, with few successful models or precedents in Africa. The internal discourses of communalism, paternalism, and kinship-based favouritism are on a collision course with a newer rhetoric of individual empowerment, entrepreneurship, and meritocracy. And of course the criteria for membership in the Nation itself becomes more and more salient as the benefits of membership become more pronounced. As the Comaroffs argue, "inclusion and exclusion" is a key dimension to ethnically-defined enterprise. But the direction of this trend is not a foregone conclusion in the RBN (Comaroff & Comaroff, 2009).

While the Comaroffs argue that "the more that ethnically defined populations move toward the model of the profit seeking corporation, the more their terms of membership tend to become an object of concern, regulation, and contestation" (2009: 65), it does not automatically follow that the Bafokeng powers-that-be will privilege "biology and birthright, genetics and consanguinity, over social and cultural criteria of belonging."

A recent case suggests another possibility. As the Royal Bafokeng Institute brings a higher level of academic opportunity and extracurricular options to the 45 schools on Bafokeng land, the benefits accrue not only to the ethnic Bafokeng children enrolled in these schools, but also to the non-Bafokeng (who outnumber Bafokeng in some schools). When Bafokeng families whose children attend schools outside the Bafokeng territory (mostly middle-class families who can afford the higher fees at the former "model C" schools) recently threatened to disrupt programs unless their children were included, the response from the Bafokeng administration was "the educational programs are for those who entrust their children to our schools; if you enrol your children elsewhere, tough luck."

While this may appear anomalous within the specific "formula" for ethnic incorporation laid out by the Comaroffs, their broader point bears out: "not all ethnically defined populations are caught up in it [the dialectic between the corporate and the cultural] to the same degree. ... not everyone need be equally embraced by the process. Or even embraced at all." (2009: 116). It may be that the Bafokeng middle class, having achieved their own self-sufficiency earlier than most, will be left on the sidelines while services are targeted at those in the greatest need, irrespective of ethnic membership.



The Royal Bafokeng Nation's 2009 budget for social and community-based spending was R1.2 billion (approx US\$150 million, at June 2010 rates). Of this, 58 %, or approximately R700 million (US\$87,5 million), is allocated to infrastructure development and social programmes. Education programmes account for 29 % of the budget, and 11 % went towards to the development of commercial and community-level sports. Aside from loans for university students, and school lunches, very little of the budget is targeted at the individual or household level. If the benefits are collective, how is the impact on individuals measured?

What, specifically, constitutes evidence of “service delivery” and equitable distribution of communal resources? Is it the annual budget and spending priorities of the Nation? Is it anecdotal feedback from the community members, as they represent themselves to kgotha-kgothe, and increasingly to the media? A socio-economic household survey is conducted every three years to determine whether spending, savings, and expenditure on health and education increase.

The programmes that fund environmental management, loans for university education, education reform at the primary and secondary level, and installation of water-borne sewage may not directly alleviate poverty in the short term, but it has and will undeniably improve the standard of living of poor people within the Community. In the interim the Bafokeng agencies need to focus on food security, primary health care, and accelerated job creation to bridge the gap between the “traditional” expectations of the community and the longer-term strategic aspirations of the administration.

Building community capacity and economic opportunity

In the longer term, however, the aggressive Bafokeng education imperative will increase economic opportunities for the generations to come. The Lebone II project is an excellent example of the ongoing debate between equitable distribution of the community's wealth, and sustainable planning for the longer term goal of poverty alleviation through human development. Lebone II, College of the Royal Bafokeng, is an independent school founded by the late Kgosi Lebone II in 1999. Initially intended as a selective private school for future leaders of the Royal Bafokeng Nation, the vision of the school has been transformed under Kgosi Leruo into a competitive independent school cum teacher-training facility at the centre of Vision 2020's strategy for education reform.

Designed to meet global standards of educational excellence, the total enrolment at Lebone II is capped at 800 (Kindergarten to Grade 12), and the planned mix of students is 70 % Bafokeng, and 30 % non-Bafokeng (including white, Indian, non-Bafokeng black, and international students). The curriculum prepares students for the South African national exams, but also enables students to study for the International Baccalaureate (IEB), which positions them to apply to universities anywhere in the world. The school's new campus reflects the principles of green building, total integration with the local landscape and climate, and the school's role as a “teaching hospital” for 45 schools in the Bafokeng region. The fee structure features a sliding scale, and all applicants take an entrance exam to determine academic ability.

For many Bafokeng, this unique and important institution is nothing more than an elitist institution satisfied to educate a few Bafokeng at the highest standards, leaving the rest to suffer the limited economic opportunities that inevitably accompany a diploma from the inferior state schools. The idea of Lebone II as a training centre for 45 primary and secondary schools, whose teachers and principals have never been exposed to high standards of content knowledge, teacher-parent interaction, extra-mural activities, is lost on many who are desperate for a pathway out of poverty.

Even with third-party funding, Lebone II is an expensive project (in excess of US\$ 56 million), and it will be at least ten years before the families of the students enrolled there will reap the economic benefits of the

resources being invested. Many in the community feel that this is an unacceptable use of the resources that their forebears worked so hard to secure a century and a half ago. This pervasive sense of entitlement to direct financial benefit rather than long term communal benefit is one of the most difficult challenges for the current Bafokeng policy-makers.

Conclusion

The RBN's status as landowner, its control over some of the world's largest platinum deposits, and its resulting status as a major investor in South Africa, that the community's long-term strategy depends on its status as both community and corporation. As a recognized traditional authority, the community is able to maintain patriarchal and hereditary forms of governance that exist alongside, but in many ways supersede, the state's political mechanisms. As a *universitas persona*, the Nation also enjoys tax-exempt status, enabling it to marshal its resources for the benefit of the immediate community, rather than allowing its dividends to be dissipated by the national treasury and its highly bureaucratic spending programmes.

The Bafokeng strategy is to adopt an aggressive corporatisation process to capitalise on its platinum interests and ensure the financial viability of the Bafokeng community in the post-platinum era (generally estimated to be 50 years from the present). Corporate structures, strict financial controls and near-obsessive adherence to corporate governance laws are some of the initiatives introduced by Kgosi Leruo in his first ten years as leader of the community. The language and procedures of the Nation's business and administrative arms are a combination of global corporate protocols and more local forms of deference to patriarchy, ancestors, and traditional social mores.

There are significant tensions and contradictions inherent in the Royal Bafokeng Nation's status as both community and corporation. As one of South Africa's approximately 750 traditional communities, the Royal Bafokeng Nation is an interesting case of South African-style democracy, wherein a parliamentary democracy governed by a liberal Constitution nevertheless recognises and protects indigenous forms of governance that support patriarchal rule and communal forms of land tenure. The RBN is also one of South Africa's largest community-based investment companies, which channels revenue derived from mineral deposits into a broad investment portfolio that, in turn, funds an aggressive social development programme in 29 rural villages.

Tensions inevitably arise when an ethnically-based polity seeks to maximise its financial standing by becoming a player on the global commodities stage. These contradictions are also apparent in a communally-organized and administered tribe using the mechanisms of the market to secure a measure of autonomy from state structures. The concept of an "ethnic corporation" within a traditional community does not preclude the deployment of tools and techniques of corporate governance alongside patriarchal governance.

Finally, the wealth and success of Royal Bafokeng Nation, rests on a paradox. To successfully pursue its goal of being a major player in the global commodities market, the Bafokeng have adopted conventional corporate strategies and outlooks. As a community committed to perpetuating non-democratic forms of governance, the RBN has also clung to its status as a chieftainship, communal land administrator, and patriarchal society. The financial advantage in this is that the community, to date, has retained a tax-exempt status. The appeal in remaining a tribal authority extends well beyond the R220 million/year benefit, however.

The World Economic Forum, United Nations, and World Bank all follow the Bafokeng approach to combating "the resource curse" with interest. With its relatively small area and population, impressive



resources and professional competencies, the RBN aspires to more than providing for people's basic needs. Environmentally-sustainable mining, the mass-enrolment of girls in sports, early childhood education, and decentralized HIV/AIDS treatment programmes are only some of the localized answers to deeply entrenched problems that might yield far-reaching solutions.

It is ultimately the South African Constitution and current political dispensation that has allowed the RBN to straddle the line between traditional community and private corporation. As the legislative environment changes, it is possible, even likely, that the Bafokeng leadership will have to shift its strategy in pursuit of its goals. At the present juncture, however, the Nation's dual status is allowing it to amass wealth and maintain non-democratic structures in a way that many view, paradoxically, as progressive.

SECTION 3 RESOURCE NATIONALISM AND COMPETITIVENESS ISSUES

Chapter 20 The relative competitiveness of the South African mining sector

This section stands alone and addresses aspects of competitiveness in the Southern African Development Community (SADC). As the South African regulatory environment is becoming more widely perceived as inhibiting business investment, the main features of the legislation are summarised from SECTION 2: CASE STUDY: THE SOUTH AFRICAN NATIONALISATION DEBATE. In addition, the case studies of the SADC countries are written from an investment perspective in this section as opposed to a nationalisation experience perspective in SECTION 1: RESOURCE NATIONALISM IN CONTEXT.

This section addresses aspects of investment examining the comparative advantages of the five main mining investment venues in Southern Africa: Botswana, Namibia, Zambia, Zimbabwe and South Africa. The study will focus on five key aspects of the investment profile:

- a) operating environment
 - minerals production
 - prospectivity
- b) minerals regulatory environment
- c) business environment
- d) governance
- e) legal framework
- f) political economics and risk.

As a point of departure, it is useful to understand the comparative advantages between South Africa and other SADC mining countries as this will set the scene for the discussions that follow. It goes without saying that South Africa is the doyen of the region's mining industry, but it does not follow that mining companies will necessarily choose the country as an investment destination over other SADC countries that are perceived to be easier to operate in. The complexity of doing business in South Africa detracts from its profile as a world-class mining country and the political, regulatory and commercial barriers to entry are high. Other less well-endowed countries provide an easier entrée to the new investor, but each have problems of their own such as poor infrastructure and institutional capacity, high levels of corruption and less stable political economies.

In all of the comparisons of different investment considerations here, South Africa is used as the benchmark with the four other SADC countries being compared as being either more or less favourable on a case-by-case basis.

A PROFILE OF THE SOUTH AFRICAN MINING INDUSTRY

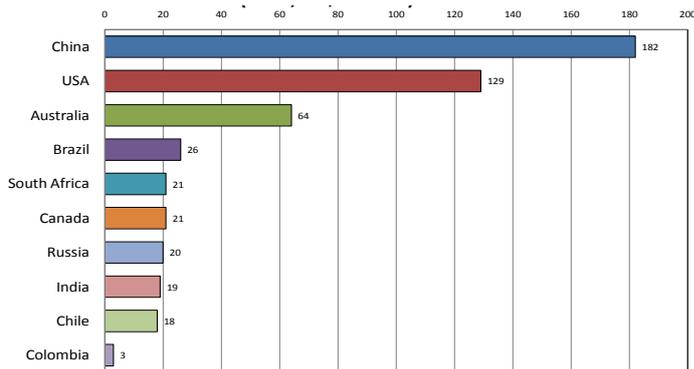
South Africa has the largest mining sector in Africa. The country is host to a number of the world's most strategic metals and minerals, and therefore cannot be ignored as an investment venue, irrespective of its difficult political operating environment. These strategic metals include resource and production dominance of platinum group metals, manganese, chrome and vanadium while the country also produces gold, diamonds and coal among a myriad of other products that could be of interest to investors given an amenable statutory environment.



South Africa has always been known as a gold mining country but this has changed with the downscaling of the deep level gold mining industry in the last two decades. Despite the decline in South Africa’s gold sector over the last two decades, South Africa remains the largest mining sector on the African continent and ranks 5th globally in terms of the generation of mining GDP. While the country’s ranking as a mining giant has declined recently, the country is nevertheless still a primary international mining investment venue. The following figures gives the international top ten country rankings of real mining GDP in US\$ billions and illustrate how the US\$ value growth in mining in South Africa is decreasing.

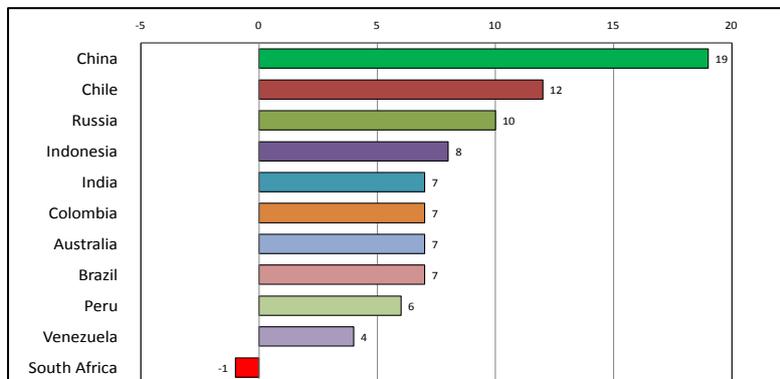
South African mining in terms of real mining GDP US\$ billion, 2008 terms

Source: McKinsey, Chamber of Mines of South Africa



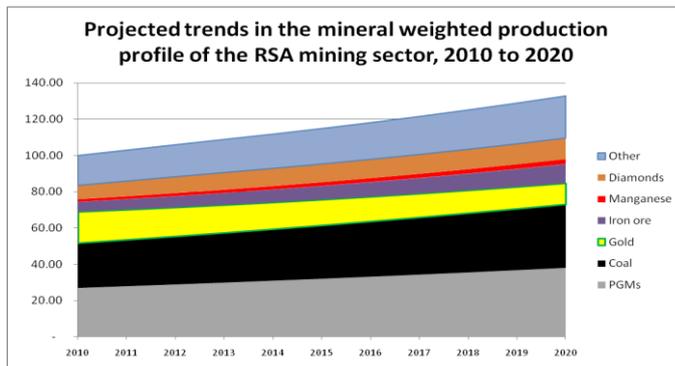
US\$ value growth in mining, 2001 - 2008

Source: Global Insight, Chamber of Mines of South Africa



The South African mining industry is set to grow by some 3-4 % over the next decade as can be seen in the next figure. Of note however is that this growth is, on the whole, lower than its peers in Africa and the rest of the world. This is surprising if one considers the extent of the country's natural resources but is a clear signal of the impact of some of the structural and political issues facing the industry.

Growth profile of the South African mining sector 2009-2010



Source: Chamber of Mines, South Africa

A further concern about the industry's competitiveness is the significant reduction of the country's share of global exploration spend. Despite the maturity of the country's mining industry, it nevertheless remains a highly prospective country with a great deal of the world's strategic minerals inventory. However, exploration investment is necessary to bring this inventory to account. Part of the problem is that traditionally much of the exploration has been undertaken by the major mining companies who are now focusing their efforts outside the country. Unlike Canada and Australia, the South African junior sector which is increasingly responsible for new discoveries is undeveloped and weak. This is exacerbated by the South African financial services sector being risk averse and not trusting the junior sector after a series of bad experiences since the gold boom of the late 1980s. This caution has been exacerbated by the significant losses suffered by the JSE-listed sector since the global financial crisis of 2008. In summary, the South African exploration and development sector lacks local investor support and the TSX and ASX investment communities are extremely cautious in investing in South Africa at present.

This is starkly demonstrated in an analysis of exploration spend undertaken by the South African Chamber of Mines which shows that South Africa attracted only 3 % of global spend on exploration in 2008 which is 50 % of what it was five years earlier in 2003.

South African share of global exploration spend 2003 - 2008

	2003	2008	% Change
Russia	2.0%	5.0%	150.0%
Peru	5.0%	5.0%	-
United States	7.0%	7.0%	-
Chile	4.0%	4.0%	-
Canada	21.0%	19.0%	-9.5%
Brazil	5.0%	3.0%	-40.0%
Australia	16.0%	14.0%	-12.5%
South Africa	6.0%	3.0%	-50.0%
Rest of the World	34.0%	40.0%	17.6%

Source: Chamber of Mines



Given the lengthy gestation periods for exploration and development projects and the high geological risk of exploration, this could be a serious issue in securing the longer term future of the South African mining sector.

Prospectivity for new projects in South Africa

A significant factor of the proposals for state intervention is the imperative to expand the South African mining industry. In this respect one must consider the fact that the industry is a mature but essentially a declining sector after 160 years of large-scale commercial mining. One therefore has to be realistic about expanding the sector to the extent envisaged in the State Intervention in the Minerals Sector (SIMS) report (SIMS, 2012) and concomitantly, take a view on whether these measures will assist or impair the potential for the industry to reverse its decline and provide the catalysis and impetus for expansion.

In the interests of keeping this overview concise, this profile deals only with the metalliferous sectors for South Africa.

The South African mining industry is a large and complex industry that is competently described in a number of sources. There are a number of prospects that could be acquired by the larger multinationals from junior exploration and development companies who have prospecting permits in the region. Among the brownfields projects is the ex-BHP Billiton-owned Pering Mine which was shut down in 2003. There are plans to reopen it. Now owned by Minero Zinc, planned production for the reopened mine is 16 000 tonnes per annum (tpa) of zinc and 1 500 tpa of lead and to ultimately increase this to 50 000 tpa of zinc and 6 000 tpa of lead.

Iron ore and steel

Also in the Northern Cape are the iron ore and manganese industries. Iron and steel is a significant industry in South Africa with ArcelorMittal dominating the landscape with four steel mills at its Newcastle, Saldanha Bay, Vanderbijlpark and Vereeniging plants. ArcelorMittal is the largest steel producer on the African continent, with a production capacity of 7,8 million tonnes (mt) of liquid steel per annum. The bulk of the company's product is consumed domestically. The company is highly criticised in South Africa for using import parity pricing for steel products sold in South Africa.

Iron ore for the steel industry is produced by a number of companies including Assmang, Highveld Steel and Kumba. Kumba operates the Sishen Mine in Northern Cape Province and the Thabazimbi Mine in Limpopo Province. Assmang produces iron ore at the Beeshoek Mine in Northern Cape, which has a rated capacity of 6 mt/yr. Assmang opened the new Khumani Mine in 2008 with a production capacity of 1,85 mt and a life of mine of 30 years. Assmang plans to increase the production capacity to 10 mtpa from 8,4 mt/yr. Most of Khumani's output will be exported.

Manganese

Manganese ore is mined by Assmang at the Gloria and the Nchwaning Mines with respective capacities of 3 mtpa and 600 000 tpa. Assmang operates the Cato Ridge ferromanganese plant in Kwa-Zulu Natal, which had a rated capacity of 300 000 tpa. Samancor Manganese jointly held by BHP Billiton (60 %) and Anglo American (40 %) operates the Mamatwan open pit mine and the Wessels underground mine near Hotazel in Northern Cape Province and produced 3,44 mt of ore in 2009. Samancor owns and operates a

ferromanganese and silicomanganese plant at Meyerton near Johannesburg which produced 494 000 t of product in 2008.

The newest manganese mining operation is the Kalahari Manganese ore deposit, also in the Northern Cape. This is a joint venture between Renova and ANC commercial wing, Chancellor House, and other partners. The mine is planned to produce 1,5 mtpa and 2 mtpa.

ArcelorMittal is also engaged in a joint venture with Kgalagadi Manganese. The project includes Kgalagadi constructing a high-carbon ferromanganese smelter in Coega's industrial development zone (IDZ) near Port Elizabeth, which will create the steel-making ingredient ready for consignment to foreign and local factories. The mine will supply 3 mt of ore a year to be converted into 2,4mt of sinter product. This will be railed via Transnet's manganese line to Port Elizabeth. The smelter will convert 700 000t of sinter product into high carbon ferromanganese, with the balance to be exported in sinter format. ArcelorMittal (the international group, not the South African subsidiary) has a 50 % offtake agreement for both products.

Platinum

South Africa hosts the world's largest large platinum industry on the Bushveld Igneous Complex, one of the most extraordinary geological complexes in the world which also hosts the country's chrome and nickel sector. The industry is dominated by four major companies, Anglo American Platinum, Impala Platinum, Lonmin and Aquarius. Platinum is also mined by African Rainbow Minerals, Anoroaq, Eastern Platinum, Platmin and Platinum Australia, with a number of new projects such as Wesizwe Platinum.

Nickel

Most of South Africa's nickel product is derived as a by-product from platinum mining. The country's only pure nickel mine is the Nkomati mine which is jointly owned by Norilsk and African Rainbow Minerals. Located in the Machadodorp area of the Mpumalanga province, 300 km east of Johannesburg nickel mining takes place by means of an underground shaft as well as by open-pit mining. Oxidised chromite is also mined as part of the pre-strip of the future open pits. The mine produces approximately 10 000 of nickel and 5000 t of copper per year as well as chromite and PGM by products from 3 mt of run-of-mine ore.

Chrome

South Africa has a large chrome mining industry of which the largest operator is the Swiss group, Xstrata. It has a number of operations on the Bushveld, its main mines being the Boshhoek Smelter, the Helena, the Horizon, the Kroondal, the Thornccliffe, and the Waterval mines which collectively have a total capacity of 5,57 million tpa. Xstrata and Merafe also have the Lion, the Lydenburg, the Rustenburg, and the Wonderkop ferrochromium plants. These plants have a total combined capacity of about 2 million tpa.

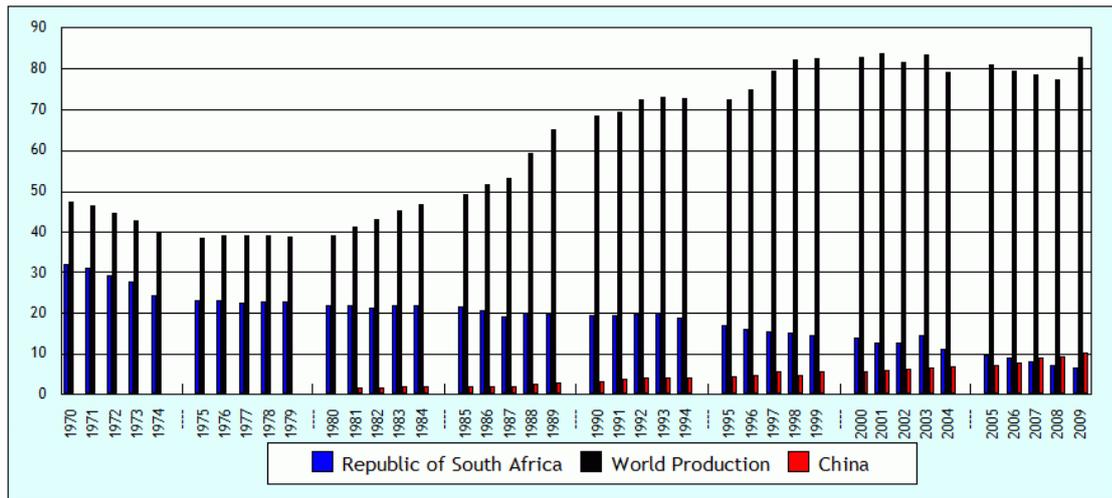
Samancor Chrome is the next largest chrome producer and operates the Eastern Chrome Mines in Mpumalanga Province and the Western Chrome Mines in North West Province. It has a capacity of 3,5 mtpa. The majority of the company's output is processed in its own ferrochromium plants, Ferrometals in Witbank, the Middelburg ferrochrome plant in Middelburg, and the Tubatse ferrochrome plant in Steelpoort. Assmang has the Dwarsrivier Mine in Mpumalanga which produced 849 000 t in 2008. It also owns the Machadodorp plant in Mpumalanga Province which produced ferrochromium 290 000 t in 2009. Other producers are ASA Metals which produces about 360 000 tpa of chromite from its Dilokong Mine at



Burgersfort in Mpumalanga Province and Herculite Ferrochrome, a subsidiary of Mitsubishi of Japan, near Brits which has a capacity of 420 000 tpa.

Gold

From being the world's largest gold producer, the South African gold mining industry has downscaled significantly over the last 140 years of commercial exploitation. The country's gold output has declined from over 1 000 tonnes in 1970 from 67,7 % of the global production, to just over 200 tonnes in 2010, a mere 7,7 % of production.



Source: Chamber of Mines, South Africa

Factors contributing to the downscaling include increasing depths, depletion of resources after over a hundred years of mining, rising operational and labour costs, lower grades, power supply constraints, and safety-related stoppages.

It is nevertheless still a vibrant and competitive industry with many of the newer players working the remnants of the once great mines sold on by the iconic six large gold mining companies such as Anglo American, Gencor, Anglo Vaal, Johannesburg Consolidated Investment Company (JCI), Rand Mines and Goldfields. Of these companies, Anglo American no longer has any stake in the South African gold sector, having once been the largest gold mining company in the country and one of the largest in the world. Anglo Vaal, Gencor and Rand Mines no longer exist, and JCI was destroyed in the Keble fraud. Goldfields is the last of the traditional majors.

Since the political transition in 1994, their place has been taken by a phalanx of new players who have succeeded these companies. The largest of these are Harmony Gold and AngloGold Ashanti which operate the deep level gold mines formerly owned by Anglo American and others. AngloGold Ashanti operates the Great Noligwa, the Kopanang, the Moab Khotso, and the Tau Lekoa mines in the West Wits area near Carletonville. The Mponeng, the Savuka and the Tau Tona Mines are located in the Vaal River area near Klerksdorp.

Harmony Gold has a number of mines, many of them sold on by the other majors as they reached the end of their lives. Production difficulties included lower grades, deeper workings, flooding, power supply

constraints, and seismic events. The company owns the Doornkop, Phakisa, Bambanani, Elandsrand, Masimong, Target and the Tshepong mines.

Gold Fields of South Africa owns the Beatrix, Driefontein, Kloof, and South Deep Mines and has a production capacity of 75 000 kg per annum.

Other groups include DRDGold owns inter alia the historical Blyvooruitzicht Mine, the Crown Mines and the East Rand Proprietary Mine (ERPM). Pamodzi Gold Ltd. operated the Orkney and the President Steyn Mines but went into liquidation. Its assets were bought by a company called Aurora, in which the principal players were a nephew of the country's president and a grandson of Nelson Mandela. Aurora dissolved in an asset-stripping scandal and the assets are again being put on the market by the liquidators of the company.

Simmer and Jack Mines Ltd, a company of more than 100 years old, recently merged with another company of similar vintage, Village Main, headed by the founder of Harmony Gold, Bernard Swanepoel, and acquired the Buffelsfontein Mine from DRDGold in 2005. A number of other juniors operate in the industry. Among these are: Canadian listed Great Basin Gold which has completed the construction of the Burnstone underground gold mine in the Mpumalanga Province. Gold One International opened its Modder East underground mine in 2009 and will produce 5 600 kg in 2011. Central Rand Gold has plans to reopen a number of underground mines in the Central Rand gold field on shafts where production has been stopped for decades.

Most of the South African gold is refined by the Rand Refinery in Germiston which is owned by a consortium of mines.

Beach sand

Finally, South Africa has a number of beach sand operations producing ilmenite, rutile, and zircon. The Namakwa Sands project on South Africa's western coast is owned by Exarro, a subsidiary of Anglo American, which also owns KZN Sands Mine in KwaZulu Natal. The largest beach sand operation is however Richards Bay Minerals in Kwa Zulu Natal, owned by Rio Tinto and BHP Billiton.

REGULATORY ENVIRONMENT

This section is a summary of Chapters 15 and 16 in Section 2 of the report.

Within the context of a continent-wide legal reform trend in Africa, South Africa undoubtedly has one of the most progressive, innovative and world-class legislative and regulatory frameworks of any African country. The principle legislative instrument is the Minerals and Petroleum Resources Development Act of 2001 (the MPRDA). In terms of this legislation, all privately held mineral rights that existed historically under the colonial and apartheid governments were returned to the state and substituted with a system of prospecting and mining permissions. The conventional sense of a mineral right no longer exists under South African law.

Because the inequity of the previous statutory regimes that excluded black people from any meaningful participation in the mining industry, "old order" rights⁶⁶ were effectively rendered null and void and could

⁶⁶ Prospecting and mining permissions issued under the Minerals Act of 1991 or previous Acts



be converted to “new order” rights subject to a strict format of qualification. Rights are now issued on the basis of commitments on the part of the mining company to a wide range of socio-economic pre-requisites intended to benefit historically disadvantaged South Africans. This refers to those people of colour denied equitable economic access to the industry under previous regimes.

These measures include:

- a) specified levels of race and gender equity
- b) demonstrated levels of procurement of black empowered and owned suppliers of goods and services
- c) the delivery of a Social and Labour Plan (SLP) which is targeted at ensuring material levels of social benefit to communities affected by mining
- d) skills development and advancement programmes for mine workers.

These measures are primarily directed at restitution. The Act is important internationally in that it pioneered the concept of including socio-economic factors into the granting of mining rights. This philosophy has now been widely accepted internationally and is integral to many fourth-generation mining law reform programmes. Alternatively it is also incorporated into minerals development agreements between mining companies and most governments.

In addition to the SLP and defined levels of black ownership (a minimum of 26 % to be achieved by 2014) technical, operational and environmental management plans are also required.

While the legislation and its regulations are competently structured, mining companies are concerned about the inconsistent application of policies and regulations. There are a number of high-profile and controversial decisions that have been delivered by the Department of Mineral Resources officials that appear to be taken arbitrarily and are well outside the policy frameworks or statutory requirements. One of the root causes for this is that the Act allows for a significant degree of discretion on the part of the Minister, who is empowered and in practice is bound to, delegate some of her powers to officials. This has resulted in inconsistent interpretation of the Act’s provisions by government, industry and labour. These weaknesses have been recognised and are being addressed in progressive amendments to the Act.

The MPRDA is complemented by other laws such as the Royalty Act, which adopts a commodity-specific system of royalties to the state. There is no facility for negotiation on matters regarding tax stabilization or the fiscal structures governing the mining and metals industry.

Mining Charter and Scorecard

To give effect to the Charter and Scorecard a tripartite compact was signed by the industry, organized labour (the National Union of Mineworkers) and the State agreeing on benefits to previously disadvantaged race groups. The Mining Charter, as it is known, is strictly speaking not regulation or law, but the scorecard derived to measure the performance of mining companies against their SLP commitments.

The Mining Charter came into effect on 1 May 2004 and companies seeking mining permission must achieve a minimum compliance by means of a points system encapsulated in a Scorecard. The 2004 Charter required companies to establish black empowerment equity (BEE) positions of 15 % by the end of 2009 and 26 % by 2014.

The Charter has recently been revised after a consultative and participatory review process that culminated in a mining summit convened by the Minister of Mineral Resources in March 2010. The product of this summit was the Stakeholders' Declaration on Strategy for the Sustainable Growth and Meaningful Transformation of South Africa's Mining Industry. A working group was also formed to review the provisions of the 2004 Charter and to provide some offset to the Codes of Good Practice (the Code) which ran in parallel with the Charter. This code was signed on 30 June 2010 by the principal stakeholders in the industry, being the Department of Mineral Resources, National Union of Mine Workers, Solidarity, UASA – The Union, the South African Mineral Development Association and the Chamber of Mines of South Africa.

Provisions of the Charter compel mining companies, by 2014, to:

- a) procure from black empowerment entities a minimum of
 - 40 % of their capital goods
 - 70 % of services
 - 50 % of intermediate inputs
- b) achieve minimum levels of 40 % black South Africans in executive, senior, middle and junior management ranks and critical skills
- c) achieve minimum levels of 10 % in mining related positions
- d) convert the single-sex hostels constructed for migrant labour into family units with one person per room.

The Charter and beneficiation

Intrinsic to the concept of broader economic benefit that underpins the South African government's policy on mining and metals, is an emphasis on the upstream and downstream value chains. As of the end of 2010, multinational suppliers of capital goods are required to contribute a minimum of 0,5 % of annual income generated from local mining companies towards socio-economic development of local communities into a social development fund. Mining companies are also required to facilitate local beneficiation of mineral commodities, but can offset the value of beneficiation against the 26 % BEE ownership requirement up to a maximum of 11 %.

Section 2.9 of the Charter requires that every mining company must report its level of compliance with the Mining Charter annually to retain its mining or prospecting permissions.

Access to information on licencing

In terms of the Access to Information Act, all documents and licenses are theoretically available to the public, but the bureaucracy involved in obtaining information is often extremely arduous. Applications for prospecting and mining permissions go into a computerized system which is publicly accessible. The MPRDA makes provisions for disclosure of information and data relating to mineral resources, on application, based on the constitutional right of access to information.

Social and Labour Plans (SLP)

The SLP is the key instrument with which the government enforces its empowerment objectives on the industry. It is the acceptance of the SLP that informs the government decision to grant a mining licence and performance against this plan that ensures the ongoing tenure of this right to mine.



In terms of this plan, companies are obliged to consult with the local communities and inform them about their plans and their impacts on the respective communities. Company commitments to the SLP include the specification and implementation of a local economic development programme that must be consistent with government Integrated Development Plans (IDPs) for the area. Companies are committed to an annual compliance report in order to retain their mining permission. The verification of these reports is constrained because of a lack of institutional capacity within government.

POLITICAL ECONOMICS

The single greatest problem that the South African industry faces is that of political management: The country is fraught with political controversy over the industry and the perceived inequitable distribution of benefit from the industry. This has led to populist calls for the nationalisation of the mines, one of the key risk factors facing any investment decision in South African mining. The approach of the 2012 elections has heralded this call for the nationalisation of South African mines by the increasingly militant ANC Youth League. To follow the debate with any semblance of rationality, one needs to appreciate the background to these calls for a broader spread of economic benefit from the mining industry in South Africa.

Details are given in the Executive Summary Part 1 and Section 1 of this report.

The issue will be debated at the ANC National Executive Committee Policy Debate in June 2012. In this debate the party will have to examine the three key elements of the issue:

- a) macro-economic issues
- b) socio-economic implications
- c) their respective impacts on the political economy of the country.

Macro-economic issues

The underlying issue relating to the popular discontent with economic redistribution post 1994 is that the real growth rate in South Africa has been only 3,3 % since the election of a democratic government in 1994. This has inhibited employment growth. With a labour participation rate⁶⁷ of 55 % in 2010, this is 10 to 15 percentage points lower than that of comparable developing economies according to John Kane-Berman. The rate has also dropped by 10 % or six percentage points over the past decade from 61 % to 55 % (Kane-Berman, 2010). He continues saying, “unemployment remains a central obstacle to South Africa's attaining the ANC's 1994 promise of a ‘better life for all’. The current rate of unemployment is officially recorded at approximately 25 %. This is significantly higher than that of almost any other comparable developing economy. Among young black African South Africans the figure now climbs to over 50%.” This lack of employment growth has exacerbated income inequality which underpins the popular frustration that has led to calls for nationalisation.

The only catalyst of employment is economic growth which is in turn a function of expansion and further diversification of the country's exports on the one hand and enhancement of the internal economic multipliers on the other. Mining as a sector still dominates foreign exchange earnings and has greater economic multipliers than other primary industries. Despite the decrease in the absolute value of the mining sector in South Africa, the industry remains critical to the country's economic growth.

⁶⁷The 'labour market participation rate' essentially assesses demand for jobs in the country. It measures the proportion of people of working age (15-64) who are either employed or unemployed (Kane-Berman, 2010).

The macroeconomic contribution of mining to the economy is:

Direct employment	500 000
Indirect employment	500 000
GDP contribution	18 %
• <i>direct</i>	8 %
• <i>indirect and induced</i>	10 %
Foreign exchange earnings	50 %
Foreign investment	18 %
• <i>direct</i>	9 %
• <i>indirect and induced</i>	9 %
Percentage of JSE market capitalisation	30 %
Corporate tax receipts ⁶⁸	18,5 %
Transnet's rail and ports traffic by volume	50 %
Electricity supply ⁶⁹	93 %
Electricity demand	15 %
Liquid fuels supply ⁷⁰	37 %

Source: Author collated from various data sources including Chamber of Mines, South Africa.

The South African mining industry in summary

The political situation in South Africa at present is highly volatile and needs to be monitored carefully. Because of the complex measures proposed by the SIMS document which juxtaposes layers of complexity upon an already difficult statutory regime for the mining sector, it is quite clear that the incumbent multinationals are leaving the country and new companies from developed economies are reluctant to invest in South Africa. This will result in realignment in the ownership structures of the industry leading to the exiting blue-chip companies being replaced by companies from China, India and Russia as well as second and third tier South African mining companies among other possible entrants. In the case of the former, they typically do not have the three decades of track record in sustainable development and community development strategies that the major companies such as Anglo American and Rio Tinto have accumulated since the Brundtland commission in the 19080's. In the case of the latter, they may not have the financial and institutional capacity or indeed the shareholder pressure and will of the large multinationals to embark on major environmental and social projects beyond the basic statutory requirement.

This factor alone could compromise the direct and tangible impact that mining companies have at local mine community level and counteract many of the stated objectives of state intervention in the industry.

⁶⁸ 2010 R14bn plus R5 billion in royalties

⁶⁹ Coal-fired power plants

⁷⁰ Fuel from coal, SASOL



Chapter 21 Case Studies of other main mining investment venues in SADC

As opposed to the chapters in Section 1 concentrating on the history of resource nationalism and actual case studies in Africa and Latin America, this chapter looks at the actual mining investment opportunities which can be found today in neighbouring SADC countries of Botswana, Zambia and Zimbabwe. It covers the full gambit of these prospectivity, investment incentives and disincentives to assess competitiveness of South Africa in the region.

BOTSWANA

Geologically, Botswana hosts the Zimbabwe craton which typically yields copper, gold, lead, nickel, and zinc mineralization. In addition to this is the Limpopo Mobile Belt which contains copper, nickel and minor occurrences of precious metals. These structures are complemented by the Transvaal Supergroup which contains asbestos, iron, and manganese. The Molopo Farms Complex could possibly host chromite and platinum-group metals. The relatively young Makgadikgadi Basin has deposits of salt and soda ash.

Despite this fairly favourable geology, the established minerals inventory is relatively sparse compared to its neighbours and principally comprises a commercially extractable suite of base metals, coal, diamonds, salt, and soda ash. Other less viable minerals including asbestos, chromite, feldspar, graphite, gypsum, iron, and manganese have been identified. However, the prospectivity in Botswana is significant as is evidenced by the amount of junior mining activity in the country.

The geology lies under a thick layer of Kalahari sand which makes reconnaissance, visual mapping of outcrops and trenching difficult. Exploration therefore is constrained to diamond drilling and various forms of geophysical survey which is expensive. While the discovery of base metals seems to be slow, coal is undoubtedly the brightest star on the Botswana mining horizon. The perceived paradigm shift in the seaborne thermal coal market towards lower-quality coals is presenting both Botswana and South Africa's Waterberg coalfields with an opportunity to develop a globally competitive coal industry⁷¹.

Regulatory environment

Botswana has a state-owned mineral rights regime. The industry is regulated by the Botswana Department of Mines. The country has a competent Geological Survey which is mandated to seek groundwater as well as its minerals.

From a regulatory perspective, there are three categories of licenses:

- reconnaissance permit
- prospecting license
- mining lease.

The department aims to process all prospecting licences in 60 days and mining licences in 30 days while diamond export permits are processed in 24 hours.

⁷¹ Much of the section on the development of coal in Botswana was drawn for a country study undertaken by Mining Weekly

Profile of the mineral industry

Botswana's economy is minerals driven and is dominated by diamonds of which it ranks third in terms of caratage after the Democratic Republic of Congo and Australia. In 2009 the country produced 17,7 million carats, some 54,2 % of the 32,6 million carats produced in 2008, demonstrating the country's vulnerability to economic volatility.

The Botswana Government holds equity in most of the major mining companies as a matter of policy. Despite this however, the mineral industry is operated primarily on a free-market principle with government enjoying effectively the same status as a private shareholder. Apart from the major companies mentioned above, there are a limited number of smaller operations producing agates, aggregates, clay, and dimension stone. The major companies operating in Botswana are:

- Debswana Diamond Company, a 50 % joint venture with De Beers Group and the Botswana Government
- Tati Nickel Mining Company, a subsidiary of Norilsk
- Bamangwato Concessions Ltd (BCL)
- IAMGOLD Corporation
- Botswana Ash (Pty) Limited.

In addition to diamonds, 28 595 t of nickel, 23 146 t of copper and 330 t of cobalt from its nickel-copper matte were produced⁷² by Tati Nickel and Bamangwato Concessions Limited (BCL), which operates the Selebi-Phikwe Mine. BCL toll-treats concentrates from Tati Nickel's Phoenix open pit mine. Gold production is 1 530 kg, produced mainly by IAMGOLD Corporation. This is considerably less than the 3 176 kg produced in 2008. Salt and soda ash are produced by Botswana Ash and coal is produced at Morepule in the south.

Copper

A significant copper project is under construction by the Australian explorer Discovery Metals on its Boseto property on the Kalahari Copper Belt, a belt of significant copper-silver mineralization that extends from the Zambian Copper Belt across northwest Botswana and into Namibia. The project's bankable feasibility study defined a mineral resource of 111,5 mt at 1,4 % copper and 17,6 g/t silver with reserves of 21,8 mt at 1,4 % copper and 18,3 g/t silver. Mineralisation consists of chalcocite, with minor amounts of bornite and other copper sulphides.

Other significant copper deposits have been identified in Botswana. Among these is the Ghanzi project being explored by Canadian explorer Hana Mining which has established a sediment-hosted copper-silver mineralization across 600 km of strike. A significant amount of work has taken place around Selebi Phikwe and Discovery has four prospecting licenses on its Dikoloti prospect covering an inferred resource of 4,1 mt at 0,7 % nickel and 0,5 % copper. It is in a joint venture with the Japan Oil, Gas and Metals National Corporation (JOGMEC) on this project.

Diamond juniors

With respect to diamonds, a number of junior explorers are active in Botswana. Among these are Botswana Diamonds (formerly African Diamonds) which currently owns three diamond exploration licences in Botswana. These include three diamondiferous kimberlites. Other diamond players include UK

⁷² Tati Nickel



listed Firestone Diamonds which has ground about 20 km southeast of Debswana's Orapa Mine and about 7 km northwest of Debswana's Letlhakane Mine which has a resource of an estimated 12 mt containing 80 000 carats at a depth of 120 m.

Coal potential

Perhaps the most interesting aspect of minerals development in Botswana is its coal potential. The country has an estimated 212 billion tonnes of coal but the Morupule colliery remains the country's only operating coal mine. The colliery supplies energy coal to the Botswana Power Corporation. With the uncertain power supply issues in SADC, particularly South Africa, Zimbabwe and to a certain extent Zambia, Botswana is well poised to become a regional source of electricity generated from coal, gas and solar sources. Both explorers and mining companies are demonstrating interest in Botswana's low-sulphur and low-phosphorus coal and coal-bed methane (CBM) projects. Countries such as India are seeking opportunities to export low-quality thermal coal, but near-term exports are constrained by a lack of transport infrastructure. The proposed US\$10-billion TransKalahari railway project to Walvis Bay would, in the longer term, radically enhance the viability of Botswana's export coal industry as would the possible construction of a 1 500 km railway to the deep-water port at Techobanine, in Mozambique's Maputo province.

An important consideration for investors is the possible establishment of smelting facilities. The Botswana Power Corporation's imperative is to increase its power generation capacity and extend its power transmission network to meet growing power demand within the country. This has encouraged active exploration for coal bed methane. The main exploration regions for coal bed methane lie north of Nata and extend towards Kasane and Pandamatenga, areas in which Anglo Coal are actively engaged in exploration projects. .

Interest in coal bed methane would facilitate a low-carbon-footprint baseload power station in Botswana that could merge solar power during daylight and methane generation at night. Estimates are that there is the potential for 60 mt of export coal a year from Botswana, along with large volumes of gas. Botswana's shallow coal is close to deep CBM coal, providing the potential to enhance the gasfields by injecting carbon dioxide into them. It is also possible that the first integrated coal gasification combined-cycle (IGCC) power plant could be built in Botswana. With the global need for lower-carbon electricity, IGCC, together with carbon, capture and storage, could play a major role in supplying clean electricity to the SADC region.

Australian-listed African Energy is developing the Sese coal project, a thick, close-to-surface continuous coal seam located 50 km south of Francistown. The company is engaged in a conceptual study to evaluate two potential project options for Sese, the first of which is a 3-5 mtpa start-up operation utilising existing infrastructure and which could commence within two years. The second option is a larger 20 mtpa export operation requiring new rail and port infrastructure to be provided by third parties.

Hodges Resources, also Australian-listed, has two projects. They are Moiyabana and Morupule South (840 km²) totalling a 414 mt inferred JORC compliant resource with 1,6 to 2,6 bt of exploration target. Aviva, another junior company, is also developing its 1,3 bt Mmamantswe. The company has done electricity transmission connection studies with Eskom and the Botswana Power Corporation for supply into the power networks of South Africa and Botswana.

India and, to a lesser extent, China are the main drivers of the demand for the lower- quality thermal coal. However, interest in Botswana is primarily Indian as it is the closest major market. The country is, however,

poised to face competition in supplying India from Mozambique and South Africa, with infrastructure not tonnage being the key constraint.

Substantial additional power station capacity is being implemented in India, involving several 4 000 MW and larger stations. This will serve to drive demand that is expected to increase the current import level of 50 mt of thermal coal a year to more than 200 mt a year by 2025. There is also an opportunity for Botswana to use its coal to become a net exporter of electricity in the fullness of time. On the one hand, Botswana has the challenge of being landlocked and, on the other hand, it has the opportunity of being central to the SADC region.

Because the government of Botswana recognises the importance of its budding coal sector, it has declared a moratorium on the issuing of coal and CBM prospecting licences until consultants have finalised a coal roadmap. Being landlocked and more than 1 000 km from the ports, the Botswana government needs to develop a coherent strategy to optimise the economic impact of its 212 bt coal resource before it invests in logistics to get that coal to market. The coal map is expected to culminate in the publication of a high-level implementation plan. Additional transmission line networks must also be established to reach out to the new resource exploration frontiers.

Political economy

Botswana undoubtedly enjoys the most stable political economy of all the SADC states. Its favourable mineral investment climate, low tax rates and a high degree of political stability and the fact that the country is a complying signatory to the Kimberley Process⁷³ is testament to its good governance.

While the Economist Intelligence Unit's democracy index of 167 countries ranks Botswana as 35th, the latest Fraser Institute survey lifts Botswana to 14th among 79 jurisdictions surveyed, well above South Africa at 67th. The Transparency International Corruption Index places Botswana 33rd, which is well above South Africa's placing in 54th position.

A major advantage to investors is that Botswana has no exchange control, and the country is committed to developing a competitive tax and economic policy environment for mining and exploration investment. Linkages with the rest of the economy are encouraged to expand value-adding activities. The government subscribes strongly to minerals beneficiation and downstream growth.

It has a well-planned and highly structured manner of reinvesting its dividend returns from its equity holdings in the Botswanan mining companies as well as the rents received over and above these. The country has a coherent economic development plan encapsulated in its 2020 Vision document. In terms of its economic diversification strategies, Botswana has invested large amounts of its mineral rents and returns in social infrastructure (schools, hospitals, and tertiary education) and has an aggressive plan, in the light of very limited expansion potential of these industry sectors, to develop its services sector.

While Botswana is undoubtedly the most attractive venue for minerals investment, immediate opportunities for mining development are unfortunately much more limited than its other SADC neighbours.

⁷³ The Kimberley Process is an international imperative aimed at mitigating the trade in conflict diamonds from being shipped through legitimate trading channels.



The Botswanan industry in summary

Botswana has been described as the “most investment friendly destination for mining on the planet”. It is highly prospective as is evidenced by the high level of activity by Australian and Canadian juniors. Importantly, the region is well resourced for energy in the future and this bodes well for smelting and refining projects. Its central proximity to and good relationships with Namibia and Zimbabwe juxtaposed with its stable political economy make it an ideal operational centre for establishing a presence in Southern Africa.

NAMIBIA

Namibia relies economically on its mineral industry, but not to the extent that Botswana does as it has a broader range of mineral products and a more diversified economy. The Namibian minerals inventory consists of diamonds, fluorspar and uranium as the dominant mineral products with gold and base metals,

Like Botswana, the country is a world class source of diamonds. In 2009, Namibia was ranked third among the world’s top producers. The quality of the country’s marine diamonds is extremely high and in terms of dollars per carat, Namibian diamonds rank third. However, the country ranks sixth in terms of its aggregate value of production and eighth in terms of caratage. Namibia's diamond output is declining but is expected to reach 1,3 million carats for 2011 compared to the 1,47 million carats reported for 2010. During 2010 diamonds accounted for only 12 % of the total value of Namibia exports, with uranium accounting for some 84 % by value.

The drop in diamond production was obviously premised by the drop in international demand. It led to the closure of many of the more marginal operations of the aging Namdeb mines such as the Bogenfels mine which was closed in 2010 and resulted in widespread retrenchments.

With respect to its other minerals, Namibia mines:

- fluorspar: 1 % of global production of and ranks 7th
- uranium: 9 % of world production and ranks 4th
- arsenic: 1 % of world production
- zinc
- lead
- gold
- manganese
- silver.

The country’s industrial mineral portfolio also consists of dolomite, granite, marble, salt, sulphur, and wollastonite. The country is known as a producer of semiprecious stones.

Regulation

The sector is administered by the Ministry of Mines and Energy. The bureaucracy is split into a number of sector-related divisions specifically Diamond Affairs, Energy and the Mining Directorates which enforce regulation while the Geological Survey is responsible for mapping and research.

Unusually, mineral beneficiation, the production of cement and the processing of semiprecious stones does not fall under the Ministry of Mines and Energy but under the Ministry of Trade and Industry which is also responsible for promoting resource-based development.

In Namibia all mineral rights are vested in the State and are regulated by the Minerals (Prospecting and Mining) Act of 1992. This Act was promulgated soon after independence. In 1999 the Government promulgated the Diamond Act 1999 (Act 13 of 1999) which was implemented on April 1, 2000. The Draft Mine Health and Safety Regulations is also awaiting promulgation.

In terms of the Minerals (Prospecting and Mining) Act of 1992, prospecting rights are granted through the issue of Exclusive Prospecting Permits (EPLs). An EPL is a three-year licence, issued by the Namibian Ministry of Mines and Energy, to cover an area of up to 1 000 km². It gives exclusive exploration rights to the land and may be renewed twice for two-year periods contingent on performance of the company against its committed work plan. Ministerial approval is required for further extensions of the EPL. The grant of an EPL includes the right to be granted a Mining Licence if the holder can demonstrate the financial and technical ability to develop and operate a mining operation resulting from a successful exploration programme.

Tax regime

In 2010 Namibia announced plans to raise its mining tax by 17 % to boost revenues lost since the financial crisis. The diamond sector is however exempt from this tax. The intention of the Ministry of Finance is to raise mining tax from the current levels of 37,5 % to 44 % in the hope of increasing revenue collection from the industry and reducing the volatility in its key revenue source, being mining. While this move would dramatically impact on the mining industry, it is part of a package of amendments to various tax laws envisaged with the reform of the country's tax legislation.

The stated objective of the tax is to incentivise domestic value-addition to raw materials and increase mining-related industrialisation and in so doing to enhance job creation in the country. These measures are also intended to address the problems of indigenous equity and the skew in the distribution of wealth and social welfare related to the industry. The government also hopes that it will reduce the country's economic dependence on South African Customs Union remittances which at this point contribute approximately a third of its fiscal revenues.

The proposed measures drew a strong negative response from business and investors alike and resulted in a partial withdrawal of the government from its proposal. In an announcement made on the 16 August 2011 the government deferred the proposed 15 % VAT on raw material exports and retained the VAT zero-rating of raw material exports. It also revised the proposed 5 % levy on the export of raw materials while retaining the levy mechanism as an integral element of the national tax policy. It now proposes differentiated levy rates ranging from 0 % to 2 % depending on the specific commodity and will consult with each sector on their respective rates.

The government also backed down completely in the proposed 44 % Corporate Income Tax (CIT) for the non-diamond mining sector and will retain the current 37.5 % along with a formula-based surcharge to capture additional mining revenue during better economic periods. This windfall tax formula has not yet been disclosed. Importantly for investors, the Non-Resident Shareholders Tax of 20 % will be retained as will a withholding tax of 25 % on management fees. Tax will also be levied on the sale of mineral rights or licences. This comprises a 12 % transfer duty for a company acquiring mineral rights from an individual, and



the money earned by the individual will be deemed to be gross income (as opposed to capital gains) and be taxed accordingly.

Industry profile

Namibia is still one of the world's largest producers of gem-quality diamonds, but in recent years diamond production has dramatically declined in favour of uranium, which has now become Namibia's most important mineral export. Increased global focus has been placed on alternatives to coal, oil and gas but the recent Japanese nuclear disaster has brought nuclear power back into the spotlight. One of the constraints to the country's mineral development has been lack of infrastructure, particularly water and power which is poorly developed across most of the country.

The Namibian diamond industry is dominated by the De Beers operations which mines diamonds both onshore through Namdeb Diamond Corporation (NDC) and offshore by De Beers Marine Namibia. In 2009, NDC's diamond production decreased by about 73 % to 300 000 carats down from the 1,1 million carats produced in 2008. The offshore operations decreased by 45 % to 60 000 carats. The decrease in output was a juxtaposition of the declining resources of its onshore operations and a decrease in the demand for luxury items on international markets, especially the United States.

With a recovery in diamond prices, by 2010, Namibian production increased 50 % to 1, 47 million carats, and offshore production is now twice that of the onshore output.

Copper

However, diamonds are clearly of limited interest to the main stream commodity miners whereas Namibia's base metals assets would be of prime importance in any SADC strategy. For many years while Namibia was under South African administration, the copper mining sector was dominated by Goldfields, which sold on its interests to Weatherly International. Weatherly owns the Kombat Mine, Otjihase, the Matchless, the Tshudi, and the Tsumeb West mines. A combination of the post-crisis collapse of commodity prices and the irregular supply of electricity from NamPower led to the closure of all of its operations in Namibia.

Since the closure, Weatherly has re-opened the Otjihase and Matchless mines, and is examining its options for Tsumeb, Tshudi and Beg Aukus. Weatherly is to re-establish a production capacity of 20 000 tpa of copper for the next ten years. Otjihase has 14,2 mt of resources grading 1,6 % copper and 0,25 g/t gold while Matchless has 1,7 mt tonnes of resource at 2,5 % copper. The company states its consolidated Resources to be 7,9 mt at 2,15 % copper and 0,35 g/t gold and Reserves to be 3,9 mt at 1,7 % copper and 0,25 g/t gold. The company reports its cost to be N\$410/ton milled which translates to US\$4 000 per ton copper to market. The Tsumeb smelter remains operational and processes copper concentrates from Chelopech Mining in Bulgaria and from Louis Dreyfus Commodities, a commodities broker. The source of Dreyfus's concentrates is not immediately clear from public domain information.

International Base Metals, an unlisted Australian explorer with a subsidiary, Craton Mining and Exploration, has a package of mineral rights in Namibia of approximately 11 600 km² made up of ten Exclusive Prospecting Licences (EPLs) and four EPL applications to explore for copper and base metals. International Base Metals also has the Omitiomire Project, which lies approximately 120 km northeast of Windhoek in central Namibia. The copper mineralisation occurs mainly as chalcocite within bands of biotite-bearing schist. The deposit is a broadly tabular body, extending at least 2 300 m in a north-south direction, 800 m in

an east-west direction and generally dipping at a shallow angle to the east. The mineralisation is evident in all directions and the deposit lies at depths of greater than 200m in the east.

Zinc

Of significant interest to investors could be the zinc mining regions around at Skorpion and Rosh Pinah. Rosh Pinah is an underground mine in south-western Namibia, 800 km south of Windhoek near the border with South Africa and produces zinc and lead concentrates. The mineral deposit occurs in complex structural settings, which is amenable to silling and benching mining methods. Current production to 95 ktpa of zinc concentrates, was until recently sold to Exxaro's zinc refinery in Springs, South Africa which has recently closed down.

The lead concentrate is sold directly to off-takers. Intensive on-mine exploration is under way to add to the total mineral resource of 8mt to extend the current economic mine life of eight and half years, based on zinc concentrate production of 95ktpa. The mine has a current resource inventory of 12,3 million tonnes with an average zinc grade of 7,2 % and lead grade of 1,9 % with reserves of 6,5 mt grading 8,25 % zinc and 2,01 % lead.

Some exploration is underway in the area by Ambase Exploration in conjunction with Rosh Pinah.

Also in the Rosh Pinah area is the Skorpion Mining operates an open pit mine and a refinery Namzinc refinery, to produce Special High Grade zinc for export. The mine produces 151 688 tonnes of zinc concentrate and employs 682 people. It and is owned by Vedanta Resources of India, who acquired the project from Anglo American in 2010.

Gold

Namibia has only one operating gold mine, the Navachab mine owned by AngloGold Ashanti Namibia. The mine is situated near the town of Karibib, some 170km northwest of the capital Windhoek and 171km inland on the southwest coast of Africa. It began open-pit operations in 1989. Processing plant is by means of Carbon in Pulp (CIP) and electro-winning and the plant has a production capacity of 120 000 tonnes per month and a Dense Media Separation (DMS) plant also with a monthly capacity of 120 000. Gold production was 86 000 oz in 2010 at a recovered grade of 1,8 g/t at a total cash costs of \$727/oz. The mine employs 687 people.

Fluorspar

The only other mineral of note mined in Namibia is Fluorspar which is produced at the Okorusu Fluorspar mine near Otjiwarongo, The mine is owned and operated by German chemicals and pharmaceuticals firm, Solvay. It is an open pit mine producing 97,5 % pure acid grade fluorspar (CaF₂). The fluorspar which is exported though Walvis Bay to Solvay's plants in Germany and Italy where it forms the basic ingredient in the production of hydrofluoric acid (HF). This is used in the manufacture of refrigerants, plastics, chemicals and pharmaceuticals. In 2010 the mine produced 104 497 t (9 % moist, 97,5 % pure CaF₂ filter cake concentrate).

Uranium

Finally, the principal interest in Namibia is uranium, which is of marginal interest to investors in terms of its current mix of commodities. In 2009, Namibia accounted for about 9 % of the world's production of uranium with two uranium mines in operation and three other mines in the planning stages. The largest



mine is Rössing Mine, Rio Tinto which mines around 50 mt of ore per year and produces around 4 000 tonnes of uranium oxide. The mine employed 1592 people in 2010.

The new mines being developed are Trekkopje by French utility AREVA, Etango owned by Bannerman Resources and Valencia owned by Forsysmetals and Westport Resources. Trekkopje is a high tonnage and low uranium content mine with mineralization that covers an area of approximately 64 square km. It will be operated as an open-pit mine planned to produce some 3 000 t per year of product from 10 000 t of ore per day. Capital construction at the mine should be completed during 2011 but the start-up date has not yet been announced. It is expected to commence production in 2013 after a delay of more than a year.

The Valencia project has been fraught with environmental problems and there is no indication as yet of its production date. The Paladin Energy mine at Langer Heinrich between Windhoek and Swakopmund is already in production and produces about 3.6 million pounds of yellowcake a year. The Etango uranium project near Rössing and Langer Heinrich is currently at feasibility study stage for an open pit mine to produce 5-7 million pounds per year. There are reports of a Chinese bid for the project's owners, Perth-based Bannerman Resources. Etango's economics are less certain than its neighbours because the deposit is low grade.

The political economy of the Namibian mining industry

Mining contributes about 50 % of Namibia's annual export earnings and makes up 15.8 % of Namibia's GDP. Like Botswana, Namibia has a model for state-participation in its mining sector. This dates back to the achievement of independence of Namibia, at which time the Namibian government secured a 50:50 joint venture between De Beers for Namdeb.

Until 2010, the 50:50 joint venture is however only for the land-based operations of Namdeb which are in decline. In 2010 De Beers Marine sold a 20 % stake in the 70 % owned De Beers Marine Namibia JV to its 30 % partner Namdeb Diamond Corp for N\$375 million (US\$53,5 million), leaving it as a 50-50 joint venture.

As with the other SADC countries, Namibia was particularly badly affected by the 2008 financial crisis. The Namibian mining economy contracted by 48,3 % between 2008 and 2009. Over a period of time the major contributor to the contraction of the industry has been the closure of copper mines and the crisis served to exacerbate the situation. Fortunately, while there has been a contraction in the base metals sector resulting from the downscaling of the copper operations, this has, to a certain extent, been offset by the development of the lead-zinc sector and particularly with the recent development of the Scorpion mine and expansions at Rosh Pinah.

The economic slowdown was devastating for the country not only from the perspective of reduced fiscal revenues from all sectors but the job losses that accompany cutbacks in production. Total employment in the mining sector has decreased by about 18 % over that period. Employment in the sector is skewed towards the large companies, particularly Namdeb and Rössing Uranium which alone provide almost 50 % of mining jobs.

Finally, resource nationalism and black empowerment is also a feature of mining policy in Namibia, but in a much less aggressive fashion than in South Africa and Zimbabwe. The Namibian government has announced its intention to declare copper, coal, gold, uranium and zinc, as strategic minerals and thus

subject to additional national protection. This means that Exclusive Prospecting Rights and mining rights to all these strategic minerals will in future be held by Namibia's state-owned mining company, Epangelo. Investors will be required to partner with Epangelo should they wish to acquire any strategic minerals in Namibia.

ZIMBABWE

Of the SADC countries outside South Africa, Zimbabwe's has one of the most interesting portfolio of opportunities. Politically, it is the most difficult country to invest in with the government having recently issued a proclamation declaring that all mining companies must transfer 51 % of their equity to Zimbabweans within six months.

Geologically the country is well endowed with 3 % of the world's platinum, 2 % of the world's lithium and palladium production, 2 % of vermiculite and 1 % of the world's asbestos production. In 2009, minerals accounted for about 38 % of Zimbabwe's exports. Of the approximately 30 minerals or mineral-based commodities produced in Zimbabwe, gold and platinum-group metals (PGMs) were the most economically significant.

Regulation

The industry is administered by the Ministry of Mines and Mining Development under the Mines and Minerals Act and the Mining (General) Regulations, 1977 with environment being subject to The Environmental Management Act of 2002. The most difficult act however is The Empowerment and Indigenization Bill of 2008 which directs that 51 % ownership of businesses in Zimbabwe be acquired by eligible Zimbabweans.

In accordance with the Minerals Marketing Corporation of Zimbabwe Act as amended by the Minerals Marketing Corporation (Exemption) Regulations, 1983 and the Precious Stones Trade Act, 1978, much of the mineral production of Zimbabwe had to be sold to the State-owned Minerals Marketing Corporation of Zimbabwe. The Reserve Bank of Zimbabwe's monetary policy statement of February 2, 2009, authorized gold exports by entities holding gold export permits. Prior to this, gold production had to be sold to Fidelity Printers & Refineries, a subsidiary of the Reserve Bank of Zimbabwe. PGM concentrates and smelter matte were shipped to processing facilities in South Africa owned by Impala Platinum which has operations in Zimbabwe.

Amendments to the Mines and Minerals Act and Regulations are currently being redrafted with input from the mining industry. Issues to be addressed in this review will *inter alia* be:

- the removal of foreign currency surrender requirements
- property rights
- a more transparent system for the allocation of mineral rights.

Undoubtedly, the most pressing problem with the development of the Zimbabwean industry is its indigenisation legislation. Enacted in late 2008, the Indigenisation and Economic Empowerment Act requires that locals own a majority shareholding in major enterprises, with foreigners required to dilute their shareholding in firms in which they currently hold controlling stakes. The legislation requires that 51 % equity in all mining projects of foreign-owned mining companies be ceded to indigenous Zimbabweans.



The imperative is being driven by the Ministry of Youth, Indigenisation and Economic Empowerment. In terms of the relevant gazette, Notice 114 of 2011, the percentage of indigenous shareholding in mining operations should be 100 % for alluvial diamonds and 51 % for other diamonds and minerals and all new investments in the mining sector.

Mining companies affected by the legislation were given six months from the beginning of April 2011 to “regularise” their share ownership and comply with the regulations. Mining companies were given until June 2, 2010 to submit their proposals. According to a list published by the Ministry of Youth Development, Indigenisation and Empowerment, 173 mining companies have submitted their proposals but at the time of writing all proposals had been rejected by government.

The outcome was rejection by the Zimbabwean government, and Zimplats was given two weeks to transfer 29,5 % of its shares to a state-run fund at the end of February 2012. By 14 March 2012, a SENS announcement was issued by Impala Platinum. “The Government has agreed in principle that the new plan presented is compliant with the law and is acceptable. No agreement has been reached on timing or valuation other than that the transactions would be at appropriate value. The proposals made by Implats to the Government in this regard are:

- shares in Zimplats representing 10% of the enlarged issued share capital of Zimplats will be issued to the Community Trust at the independent valuation previously submitted to the Government. Zimplats will provide an interest free loan to the Community Trust to fund the shares and the loan will be repaid from dividends. This stake would be non-contributory
- shares in Zimplats representing a further 10% of the enlarged issued share capital of Zimplats will be sold to an employee share ownership trust for the benefit of all full time employees of Zimplats. The shares will be sold at the same independent valuation and Zimplats will provide an interest-bearing loan to the Employee Trust to fund the purchase of the shares. The loan will be repaid from dividends and will be contributory or dilutive.

It has also been agreed that Zimplats and the Government will explore fair value compensation in lieu of empowerment credits for the ground released under the agreement of 24 May 2006. It was proposed to Government that on receipt of this compensation, Zimplats will make available for sale to the National Indigenisation and Economic Empowerment Fund (“NIEEF”) a 31% fully contributory stake in Zimplats for cash at an independently determined fair value at the time. Future expansion opportunities will therefore not be impacted.

Upon the execution of these initiatives, Zimplats will have met all of the Government’s indigenisation and empowerment objectives and requirements.” (Impala Platinum, 2012)

An interesting aspect of the policy is that the Zimbabwe government has given Chinese firms preferential treatment under its Look East policy, effectively allowing the Chinese to establish partnerships which do not conform to the requirements of the indigenisation law. The Zimbabwean government reserves the right to grant special dispensations of shareholding for an agreed tenure under the empowerment law.

The political economy of the Zimbabwean mining industry

The political economy of Zimbabwe can only be described as being disastrous and this has led to the economic collapse of the country. Unfortunately, at this juncture as far as mining is concerned there appears to be little relief on the horizon. With the current indigenisation programme requiring mining

companies to place 51 % of their equity in Zimbabwean hands in an unrealistically short space of time, investment in the Zimbabwean mining industry is not for the faint hearted.

It was hoped that many of the historical problems relating to investment in Zimbabwe would improve with the introduction of a Government of National Unity (GNU) but this was unfortunately not to be. It was intended under this new dispensation to develop a new constitution and to foster agreement and cooperation among the political parties in the GNU to agree and co-operate on the key issues facing the country's economic development. However, this has unfortunately not happened and there is still lack of agreement between the parties on a number of issues.

There seems, however, to be consensus on the controversial indigenisation laws. These stem from the widely-held perception that foreign-dominated mining companies are siphoning off the country's mineral wealth without tangible benefits for the local economy and that Zimbabwe, as a mineral-rich country, enjoys little financial benefit from mining. Government and empowerment proponents argue that increased local ownership and participation in the sector would not only positively impact on the economy but also improve the standard of life of ordinary Zimbabweans. The generally held opinion from the investment community is however that the empowerment law will hamper foreign direct investment and consequently impede the development of the mining industry.

It is an established fact that the country's minerals industry has been progressively underperforming. At its peak the industry contributed 7 % to Gross Domestic Product, was the source of 50 % of the nation's foreign currency earnings and employed some 60 000 people. Gold output peaked at 27 t in 1999 and has now declined to 3,5 tpa. Under a more stable political regime, the industry can undoubtedly be restored to its former glory. However, in order to attract new investment the country must restore political, economic and legislative stability.

Apart from politics, the major obstacle to mining investment in Zimbabwe is its deteriorated infrastructure. While Zimbabwe has vast mineral resources, as a land locked country it is entirely reliant on neighbouring ports and transport infrastructure in order to realise their value. Traditionally, most exports have been directed through Maputo and Beira in Mozambique, but export volumes through Maputo are currently affected by port capacity constraints. Upgrades to the port are in progress

Beira, on the other hand, is too shallow for the heavier deeper draft bulk carriers. The use of South African ports currently is not feasible for Zimbabwean mining companies. This is as a result of logistic constraints in transporting product to South African ports and the fact that they are operating close to capacity. A dramatic increase in transport costs to ports in South Africa has also made these options uncompetitive.

While Zimbabwean rail infrastructure is still in relatively good condition, the lack of electrical power is highly problematic. There is a shortage of locomotives to meet total rail capacity requirement and unused rail siding appliances are now either non-existent or have been vandalised. Substantial upgrades to rail equipment are therefore required to support efficient movement of material. This would include the refurbishment of cargo rolling stock wagons, which would be relatively inexpensive.

Industry profile

The top mining companies operating in Zimbabwe are Zimbabwe Platinum Mines, Mimosa Holdings, Metallon Gold, Bindura Nickel Corporation, Murowa Diamonds and Anglo American. Other mining companies with operations in the country are Mwana Africa, Zimari Platinum and several Chinese-owned



firms such as diamond miner Anjin Zimbabwe, China-Zimbabwe International Corporation, Afro-Sino Mining Resources and Chinajin Baki Mining.

The sector achieved 47 % growth in 2010 and is expected to grow by 44 % in 2011, primarily as a result of the recovery in gold production. The sector's contribution to gross domestic product is envisaged to increase to 9.3 % in 2011 up from 8.1 % in 2010. Despite the turbulent political economy and onerous ownership regulations, Zimbabwe has foreign-owned mining companies continue to persevere with the situation. Many of these companies work alongside the state-owned entities such as Zimbabwe Mining Development Corp (ZMDC), the Zimbabwe Iron and Steel Company (Zisco), Zimbabwe Alloys Limited (Zim Alloys), Zimbabwe Mining and Smelting Company (Zimasco) and Industrial Development Corporation of Zimbabwe, which had assumed control of many inactive copper and gold mines that were relinquished as companies withdrew from the country.

Platinum

Zimbabwe has the second largest known resources of platinum after South Africa. Several PGM deposits are hosted in the Great Dyke, a 450 km-long mafic and ultramafic intrusive structure that runs through central Zimbabwe with a maximum width of just 11 km. There are currently two operating PGM mines, one project at an advanced stage of mine development and five projects under exploration. Zimbabwean platinum operations are relatively shallow and are thus lower cost operations than their South African counterparts. During 2010 platinum production from Zimbabwe was 230 000 oz, while palladium was 180 000 oz. Aquarius holds a 50 % interest in the Mimosa mine in a joint venture with Implats. Mimosa produced 199 625 oz in 2010.

The largest producer is Ngezi Platinum, located 150km southwest of Harare. It is owned 70 % by Zimbabwe Platinum Mines (Zimplats) and 30 % by Impala Platinum. Ngezi has followed the failed Hartley operation, developed by Australian companies BHP and Delta Gold in the mid-1990s. An underground operation, Hartley was brought into production in 1997 at a cost of US\$289 million, but shut within two years because of operational problems. Zimplats acquired both Delta and BHP's share and is now 86 % owned by Impala. Ngezi was planned as a 2,2 mtpa open pit operation producing 208 000 oz per annum of platinum-group metals, nickel, copper and cobalt. The ore from Ngezi is treated in the Selous Metallurgical Complex at Selous part of the original Hartley project.

New expansions at Mimosa and Zimplat's Ngezi site have increased production at both sites. Outline plans have been developed for the Phase 2 expansion at Ngezi, adding about 200 000 oz per annum of PGMs, as well as for the Wedza Phase 6 at Mimosa. Should these developments take place, together with production from Angloplat's Unki project, Zimbabwe will become the world's third-largest platinum producer.

In 2009, total proven and probable reserves at Ngezi were estimated to be 217,4 mt containing 23,9 moz of 4E PGMs in an orebody channel width averaging 2,4 m grading Pt 1,7 g/t, Pd 1,32g/t, Rh 0,14g/t and Au 0,25g/ t. Hartley's resource base is 218 mt grading 2,04g/t platinum-group metals equivalent.

Anglo American Platinum has recently commenced production at its Unki Mine. After the completion of a US\$600 million capital construction project, production is being ramped up to 150 000 oz per annum processed at a 1,4 mtpa capacity concentrator. The first ore has been stockpiled for processing since the concentrator was commissioned in the final quarter of 2010. Concentrate will transported by road to the Anglo American Platinum Polokwane smelter in South Africa.

Other projects include that of Amari Resources which owns Zimari Platinum. The company has a drilling programme at the Serui prospect, south of the Hartley Complex near Selous. The Bougai and the Kironde platinum prospects, southwest of Gweru on the Great Dyke are held by Todal, a Zimbabwean company. Todal is 40 % owned by ZMDC which is in joint venture with a French company, Lefever which owns 60 %. There have been a number of bitter disputes about the ownership of these deposits. London-listed Camec acquired the Lefever shares in Todal in a highly controversial deal in 2008 in which Anglo Platinum's rights to the project were lost without compensation.

Nickel

Nickel has traditionally been a major mineral product for Zimbabwe but there is currently a hiatus in production. The largest operation is the Empress Nickel Refinery, owned by RioZim, a company which acquired Rio Tinto's interests in 2004. The refinery currently operates at about 52 % of installed capacity. Nickel matte is toll refined for Bamangwato Concessions Limited in Botswana.

The other major player in the nickel sector is Bindura Nickel Corporation which is controlled by Mwana Resources. It acquired a 52,9 % controlling interest from Anglo American Corporation of Zimbabwe in 2003. The company is listed on the Zimbabwean Stock Exchange and owns and operates the Shangani and Trojan nickel mines, which have hoisting and treatment capacity of 1,0 mt and 1,1 mt a year respectively. Construction of an upgraded concentrator at Trojan, designed to improve nickel recovery and reduce the talc content of the concentrate, was completed in February 2008.

The Bindura Smelter and Refinery complex produces high quality nickel cathodes, copper sulphide and cobalt hydroxide from the Trojan and Shangani mines. The plant toll treats nickel concentrates and nickel matte from third parties to utilise spare capacity. Current smelter capacity is 1 000 tpa and for the refinery 14 500 tpa. Construction of an oxygen injection plant was completed in 2008.

The Shangani and Trojan mines and the Bindura Smelter and Refinery complex were placed on care and maintenance in November 2008 as a result of continued production difficulties and a sharp decline in the price of nickel. Further expenditure on capital projects is in abeyance but plans are in progress to restart the Trojan mine and an offtake agreement with Glencore International has been signed.

Rio Tinto Zimbabwe (RioZim) operates the Empress nickel refinery near the Eiffel flats. The refinery has the capacity to treat 18 000 t of matte per year, producing nickel cathodes, copper cathodes and cobalt as a by-product.

Chromite

During 2009 the Government imposed a ban on the export of chromite ore but later retracted this and issued an 18-month waiver on the ban. After the lifting of the ban, UK-based Chromex Mining acquired 49 % interest in Falvect Mining which included the right to co-develop Falvect's chromite concessions in the Shurugwi region and tribute agreements in the Ngezi area. The deals gave the resources giant the right to market 100 % of the chrome products produced from these operations.

Ferrous metals

In terms of ferrous metals, Zimasco has restarted ferrochrome production at its Kwekwe plant that had been on care-and-maintenance status since December 2008. Commodities group Metmar have a 40 % stake



in ZimAlloys Chrome in partnership with Zimalloys, who have the remaining 60 %. The company will produce some 360 000 t of chromite concentrate a year to be smelted in a 120 000 tpa arc furnace.

Diamonds

While diamonds are produced in Zimbabwe, the country has not been fully explored although aeromagnetic surveys in the early 1980's revealed several anomalies which still require ground follow up. There are currently three mining operations with an output of about 400 000 carats a year with a potential to increase production to over 2 million carats per year. The most significant deposit is the Marange Diamond Mine which has had a controversial existence. The other major projects are the Murowa Mine which is owned by RioZim and the River Ranch Mine in southern Zimbabwe over which there are a number of ownership disputes in the Zimbabwean courts.

The case study in Section 1 of the report on Zimbabwe covers the Marange diamond fields in detail.

Coal

Zimbabwe has had a fairly active coal mining sector in the past which, like the other sectors, has seen many operations being suspended and being placed on care and maintenance. One of these is the Hwange Colliery which was founded in 1899 and is located near Hwange in the province of Matabeleland North and is the country's sole coal producer. The failure of the company to produce coal has been cited as one of the reasons that Zimbabwe has a power shortage. The Government accused the mine's management of being incompetent and being to blame for causing electricity shortages by failing to supply enough coal to Zimbabwe Electricity Supply Authority (ZESA). The company is only producing 50 000 t per month of coal, far short of the 250 000 t required by ZESA every month. Zimbabwe's Prime Minister Morgan Tsvangirai has set up a committee to investigate the company as the government is a significant shareholder in it. Zimbabwe is currently facing severe power outages because regional suppliers have reduced power supplies as a result of government's failure to pay its debts.

Hwange's output has in the past been supplemented by the production from Clidder Minerals with coal from the Chaba Mine. Clidder has secured a contract to develop a coal mine in the western coalfields to build a power plant. RioZim is proceeding with the development of the coal-fired Sengwa electrical-power generation project, which was known as the Gokwe North Power Station project prior to being deferred in 2000. Tulicoal (Private) Ltd. resumed production at the Tuli coal mine in southern Zimbabwe in late 2009.

The Zimbabwean industry in summary

While Zimbabwe has abundant mineral resources and a well-developed but deteriorated transportation system, politics remains at the core of the country's inability to bring its mining assets to account. Shortages of electrical power, food, fuel, and skilled employees exacerbate the problem and the planned indigenisation of the mines is deterring new investment into the country. The quest for new investment is complicated by the massive debt built up by the state-owned mining companies which materially compromises their viability even if the mines are privatised.

ZAMBIA

Zambia's hallmark in the mineral sector is its copper-cobalt industry which was valued at US\$3,3 billion per year and in 2009 accounted for approximately 4 % of the world's total output. The country also produces precious and semi-precious gemstones⁷⁴. At the macroeconomic level the industry is responsible for 8,9 % of real GDP at 1994 prices⁷⁵ and exports of cobalt and copper make up 74 % of Zambia's exports⁷⁶.

Regulatory regime

The mining sector is regulated by the Ministry of Mines and Minerals Development. Within the ministry are a number of departments including the Mines Development Department, the Mines Safety Department and the Geological Survey.

The industry is subject to the Mines and Mineral Development Act of 2008⁷⁷ with the exception of uranium exploration and mining, which falls under the Mines and Minerals Development (Prospecting, Mining and Milling of Uranium Ores and Other Radioactive Mineral Ores) Regulations of 2008. At an operational level, the industry is also governed by the Environmental Protection and Pollution Control Act of 1990 and a 1999 amendment to this act. Petroleum exploration and production are regulated by Act No. 10 of 2008, the Petroleum (Exploration and Production) Act of 2008. Environmental management falls under the Environmental Protection and Pollution Control Act of 1990 and the Amendment Act of 1999.

The promotion of the sector falls under the Zambia Development Agency Act of 2006.

Tax regime

The sector is subject to capital allowances, mineral royalties, mining development agreements, the variable profits tax, and the windfall tax⁷⁸. Investment in the industry is encouraged through the Zambia Development Agency Act of 2006.

Legislation and regulation applicable to the mining sector includes the:

- Income Tax Act (Chapter 323 of the Laws of Zambia) and amendments
- Income Tax (Amendment) Act of 2008
- Income Tax (Amendment) Act no. 27 of 2009.

Over and above this, the Mines and Minerals Development Act of 2008, specifically addresses capital allowances, mineral royalties, mining development agreements, the variable profits tax, and the windfall tax.

⁷⁴ Primarily emerald and amethyst

⁷⁵ USGS

⁷⁶ Bank of Zambia, 2010

⁷⁷ Act No. 7 of 2008

⁷⁸ The Income Tax Act, Income Tax (Amendment) Act of 2008 and Income Tax (Amendment) Act no. 27 of 2009



Industry profile

Copper

Historically, the country's mining industry has been dominated by the copper sector. Many of the larger mines are relics of the failed nationalisation policies of the 1970s and are in the process of being resuscitated by new owners after decades of deterioration and management. The mines include Lumwana, Chambishi, Konkola, Nchanga and Kanshanshi.

As with many of the larger mines Chambishi Metals Plc suspended operations at the Chambishi cobalt smelter because of the decrease in global metal prices. Chambishi Metals ceased processing low-grade material from the Nkana slag dump because of higher costs. However, this loss of smelter production is offset by the Konkola expansion of the Nchanga smelter capacity to 3 000 tpa for cobalt-copper alloy production. Konkola, owned by Vedanta of India, produces 155 000 tpa of copper anode at the Nchanga smelter 20 km south of Konkola Deep. The company also produces copper cathode at the Nkana copper refinery accounting for 77 % of Zambian production. The smelter produces cobalt, copper and sulphur from run of mine ore.

Apart from ore production, there is a tailings dam reclamation project at Chingola where a tailings retreatment plant has a planned production of 24 000 tpa of copper. Vedanta has however suspended operations at the Chingola and the Fitwaola Mine, decommissioned the Nkana and ceased operations at the Nampundwe pyrite mine which produced sulphuric acid for the smelter. Kansanshi Mine is owned by Canadian miner First Quantum Minerals and produced 18.5 million tonnes of ore yielding 101 183 t of copper cathode from the Kansanshi solvent extraction-electrowinning plant in 2009. First Quantum has also acquired an 85 % interest in Kalumbila Minerals which is exploring for base metals in Zambia.

In addition to Kanshanshi, First Quantum owns the Lonshi Mine in the DRC and treats those concentrates at the Kanshanshi smelter. It also has interests in the Fishtie copper project north of Mkushi about 200 km southeast of Ndola which is planned to produce 100 000 tonnes per month of ore.

Operations at the Baluba copper mine owned by Indian operator Luanshya Copper Mines Limited were suspended in 2009 as was the development of the Mulyashi Mine. The Zambian Government consequently precipitated the sale of the Baluba and the Mulyashi assets to Chinese interests. China Nonferrous Metal Mining Corporation in conjunction with the China Africa Development Fund acquired 85 % equity interest in LCM from Enya Holdings for US\$50 million. CNMC has resumed production at Baluba and started construction of the Mulyashi open pit mine in 2010. China Nonferrous Metals also entered into a 60:40 joint venture with the Yunnan Copper Industry Group to commission a copper smelter at Chambishi that will process about 35 000 tonnes of copper concentrate yielding 15 000 t of copper anode per annum. The company plans an expansion to 300 000 t per year.

The Lumwana mine is reported to be Africa's largest copper mine. Lumwana Mining Company, a subsidiary of Canadian operator Equinox Minerals, is planned to produce 20 mtpa of run of mine ore yielding 172 000 tpa of copper. A key reason Lumwana has not been mined earlier is the limited infrastructure in the region. The Northwest Highway, which links the Lumwana region, Solwezi and the Copperbelt, passes within 3 km of the project. The Zambian government has completed a highway upgrade as far as Solwezi and has committed to extend the upgrade to Lumwana. It has also completed a 330 kV power line to Solwezi which will be extended to Lumwana. Concentrates will be smelted and refined into metal at smelters either in Zambia, southern Africa and/or offshore. Negotiations are underway with a number of

regional smelters, and concentrate agreements have been signed with Palabora Mining Company of South Africa, Ongopolo Mining & Processing Ltd of Namibia and Mopani Copper Mines plc of Zambia. In a recent development Barrick Gold acquired all the issued and outstanding common shares of Equinox Minerals in a takeover offer valued at C\$7,3bn (US\$7,6bn).

Glencore International in a joint venture with First Quantum in the Mopani mine, suspended production from the Mufulira and the Nkana copper sections. The result was the Zambian government demanding the return of the licenses for these mines where after the consortium elected to keep the mines open.

Manganese

As far as other metals are concerned, Zambia produces some manganese ore which is mined on a small-scale in Luapula Province in northern Zambia. Nevertheless, the construction of a ferromanganese smelter to process the concentrate from these operations has been proposed but lacks the secure supply of power to warrant its construction. There is also very limited nickel production with the Munal nickel mine (owned by Australian company Albidon) suspending operations in 2009, resulting in the liquidation of Albidon which was placed under voluntary administration. The Chinese base nickel and metals producer Jinchuan which had a 100 % nickel concentrate off take agreement produced from the Munal Mine, subsequently increased its interest in Albidon to 50,4 % from 18 % and resumed underground mining.

Traditionally, the largest of the coal mine producers was the Maamba Colliery, which was closed for a number of years. Operations were curtailed again when the new operators failed to meet their financial commitments of about US\$50 million to their contractors. Maamba is now controlled by the Indian group Nava Bharat Ventures which along with local investors acquired a 65 % equity interest in the mine from ZCCM (a government-owned entity) for US\$26 million. Nava Bharat also undertook to build a 300 MW power station as part of the deal. The company resumed operations in 2009. The only other coal mining operation of note is Collum Coal Mining Industries.

There have been uranium finds in Zambia, but few of these have reached fruition. Australian explorer, African Energy Resources has had a number of projects near Chirundu. In a joint venture with Albidon, they have conducted a bankable feasibility on its Gwabe and Njame prospects. Other projects operated by the company include Siamboka, the Kariba Valley, the Namakande prospect, the Sitwe prospect on the Northern Luangwa Valley and Sinazongwe licenses. In addition to this, Canadian explorer Denison Mines has completed a resource estimate for its Dibwe and Mutanga prospects while AfNat Resources continues its exploration on its Mpande uranium license.

With the recent decline of uranium prices Lumwana has deferred the construction of its uranium treatment plant at Lumwana and is stockpiling uranium-bearing ore produced as a by-product to its copper mining activity. This ore grades at 0,1 % uranium.

Political economy

The Zambian Copper Belt was one of the most important copper mining regions in the world after the Second World War. In 1964, it was the third largest copper producer in the world, exporting more than 700 000 tonnes per annum and ranked among the most prosperous countries in Africa.

The industry accounted for 90 % of the country's exports. The economic reforms of 1968 paved the way for greater state intervention in the economy which resulted in Dr Kenneth Kaunda's government, declaring in



1970, an intention to acquire equity holdings of 51 % or more in a number of key foreign-run firms in the country. The previous owners of the mines were offered management and marketing contracts, an arrangement that lasted only until 1974, when the government terminated these contracts.

Zambia's over-dependence on copper is best illustrated by these statistics. Copper contributes 40 % to Zambia's gross domestic product and makes up 95 % of the country's exports. About 62 % of government tax revenue comes from copper receipts. However, for 30 years, copper production has steadily declined from a high of 700 600 mt to a low of 226 192 mt in 2000. The decline was a result of poor management of the state-owned mines by Zambia Consolidated Copper Mines (ZCCM), and a lack of investment.

As with all the minerals-rich African countries, Zambia was again also badly hit by the collapse of commodity prices after the 2008 crisis, but with the resurgence in prices, its mineral industry has begun to recover. And renewed investor interest is quite apparent. What is very evident about this resurgence however is the predominance of Chinese and Indian interests, and it remains to be seen as to the extent to which this competitive situation creates tensions between these two companies.

With its economic reliance on copper, starkly demonstrated after its disastrous foray into nationalisation of its mines, Zambia faces several internal and external obstacles to successful economic diversification. Apart from the fact that the country is land-locked, there are severe constraints on power and oil supplies, high transportation costs, limited national infrastructure and the ongoing issues of HIV/AIDS from which Zambia suffers one of the highest rates in the region.

This said, the Zambian Government is pursuing diversification policies with respect to the bolstering of electricity-generating capacity and active promotion of exploration. It also intends to establish industrial parks to stimulate the secondary and tertiary sectors associated with mining as well as encouraging the beneficiation of dimension stone, ferroalloys, gemstones, and other industrial minerals.

While the Zambian government has no indigenisation policy *per se*, as a consequence of its failed nationalisation policy it holds 10 % - 15 % of the country's copper mines as per the contracts. With the re-privatisation of the mining industry, the Government retained minority interest in most of the large copper projects through its holding company Zambia Consolidated Copper Mines Investments Holdings Plc (ZCCM-IH).

The Zambian government has come out strongly against nationalisation (in the midst of the South African government debate). Despite this position it has mooted the increase in state participation in certain Zambian projects to from the current 10 % - 15 to 35 % in the country's copper mining enterprises as a means of influencing strategic decisions with respect to the development or closure of mines. The imperative would be to protect jobs affected by the large-scale suspension of operations as happened after the global financial crisis.

The Zambian government had announced its intention to impose a 25 % windfall tax the on the value of produced base metals in the wake of the resources boom prior to 2008. The Zambian government has subsequently abolished this tax. This is primarily on the pretext of the decrease in international copper prices associated with global economic crisis of that year. With the subsequent recovery of commodity prices, there are renewed calls by structural adjustment protagonists in the multinational organisations such as the World Bank and IFC for the recovery by Zambia of a greater portion of the mineral economic rent to the fiscus. Unsurprisingly, these sentiments have been opposed by the industry.

The Zambian mining industry in summary

While Zambia is unlikely to achieve its former greatness, it is probably of the most highly prospective regions within the SADC arena. Having suffered the set-backs of failed policies, Zambia is extremely sensitive about attracting investors and should be a priority for any country-level mining investment strategy.



Chapter 22 The relative competitiveness of the SADC countries on minerals investment

If one digresses from the current debate around policy and nationalisation, South Africa is highly competitive as an investment venue. The country's financial markets are sophisticated and world class. The Johannesburg Securities Exchange (JSE) is the 18th largest stock exchange in the world and ranks first on its quality of regulation. In general, the country's financial services sector ranks second only to Australia. The supply of goods and services are efficient and well organised, and provide the greatest competitive edge in terms of mining investment. On the negative side, rising electricity prices are highly problematic with respect to hoisting and ventilation in deep level mining, and smelting and refining in the development sector.

On a more general level, there are a number of different measures of competitiveness that should be considered when evaluating mining investment in South Africa as opposed to its neighbours. These are:

- commercial competitiveness
- prospectivity
- market context
- product demand
- regulatory environment
- enabling factors.

Rating agencies

Competitiveness ratings are done by a number of agencies, three of which will be referred to here. They are all perception surveys. The higher the rating, the more competitive a country is perceived. These are:

- World Economic Forum Global Competitiveness Report (The World Economic Forum, 2012)
- World Bank (World Bank Group, 2012)
- Fraser Institute (Gwartney, Lawson, & Hall, 2011).

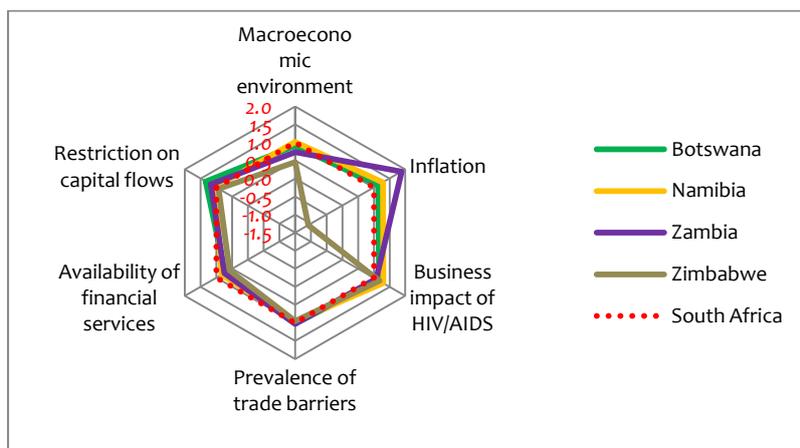
Starting with the World Economic Forum study, while this is not mining specific, it is highly relevant in terms of assessing the overall operating environment in which an investor can expect to experience. This will obviously have a key impact on the risk premium that is applied to the weighted average cost of capital of projects and hence the returns that can be expected from new projects.

As can be seen from the competitiveness charts, South Africa, despite its political perceptions, still provides the most attractive enabling environment for business of all economies in Africa and this is also important when considering investment in neighbouring countries. Remember the surveys are perceptions not quantified statistics.

South Africa is used as the benchmark case study against which the other four countries are compared.

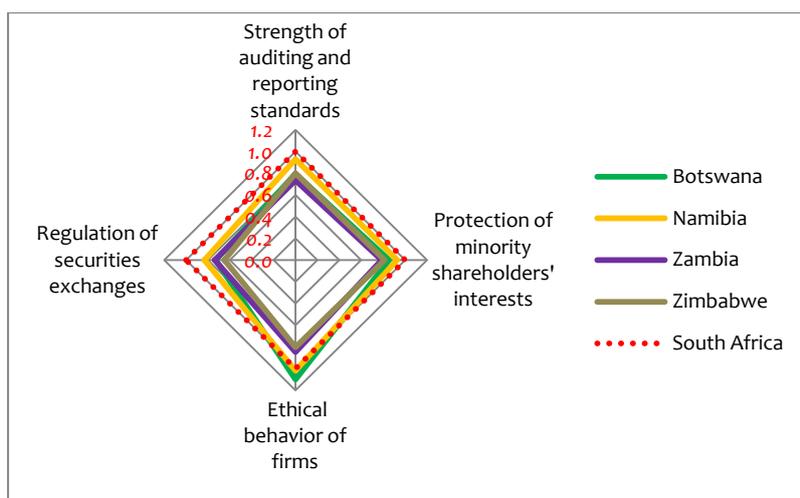
The figure on the business environment comparative profiles highlights the key success factors that would be relevant for investors in SADC. South Africa is perceived as the most competitive on financial services. All countries are perceived to have a prevalence of trade barriers, and South Africa ranks on a par with Namibia on perceived restriction on capital flows. South Africa is perceived the least competitive as regards the impact of HIV/AIDS on business. Given the levels of sophistication of the financial services sector, infrastructure, skills inventories, the supply of goods and services and institutions, these perceptions suggests should investors decide to invest elsewhere in Africa, the subsidiary may well have a South African base to leverage these competitive advantages. This has implications for the South African secondary and tertiary sectors, but not for the primary mining industry.

Competitiveness: business environment comparative profile (World Economic Forum)



With the attendant risks of doing business in Africa, while the enabling environment is critical to the investment equation, corporate governance is equally important given the large amounts of money at play. It is therefore important that the significant enabling environment provided by South Africa is supported in that country by the strong governance structures in place.

Competitiveness: corporate governance (World Economic Forum)



Under the King III governance regulations and the new Companies Act, onerous conditions are placed on the directors and executives of South African companies. These provisions are supported by the fact that



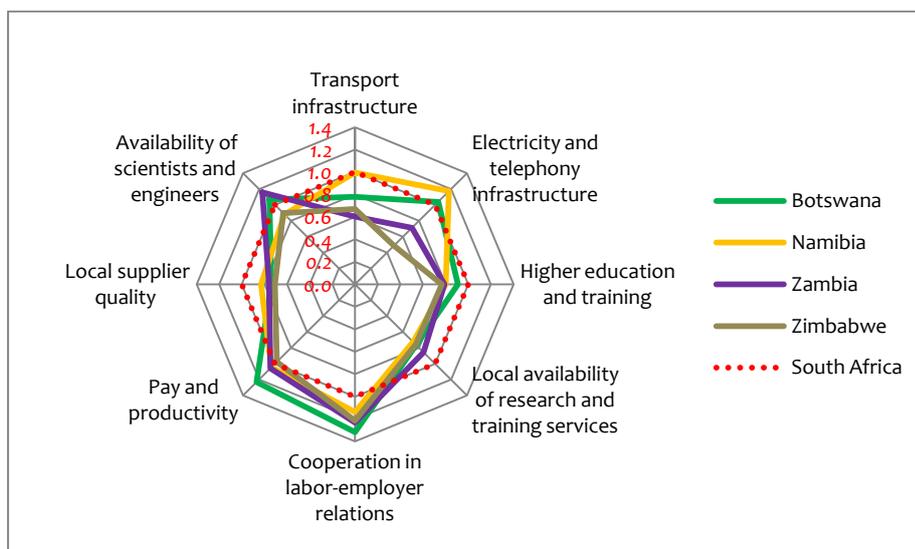
the JSE ranks top in the world for governance of securities exchanges. While the figure below on corporate governance clearly shows South Africa’s comparative advantages in this respect, Botswana, Namibia and Zambia fare very well with the exception of financial services, which is an important aspect of doing business in Africa.

Most of the South African financial institutions involved in the resources mining sector have branches in the other SADC countries or are easily accessible from Johannesburg, so this is not a major constraint at all for the other four countries. It must be clearly understood that neither Botswana, Namibia nor Zambia have the strong regulatory environment that South Africa has, therefore, while these countries rate well on corporate governance, their institutions are weaker resulting in a higher risk in this regard. South Africa loses its full competitive edge on the perception of ethical behaviour of firms.

The third critical aspect of the enabling environment of these five countries is a profile of those factors affecting the operating conditions themselves. South Africa is only regarded as the most competitive in local supplier quality, higher education and training, and local availability of research and training services. On perceptions it ranks as the most uncompetitive on co-operation in labour-employer relations and behind Botswana and Zambia on pay and productivity. South Africa’s labour movement is very strong and perceived as militant. The other perception is that the unions are highly politicised, so strike action particularly around wage negotiation time, is a problem. The other countries have unions that are barely tolerated by government and these unions have nowhere near the proximity to government that they have in South Africa.

The perception of the availability of skills advantage attributed to Zambia and Namibia is unlikely to be higher than that of South Africa, particularly given the fact that many of the professional skills deployed in the mining sectors of Namibia and Botswana are South African, Australian and Canadian. This is exacerbated by the fact that many of the well qualified engineers and other professionals from Zambia and Zimbabwe are working in South Africa.

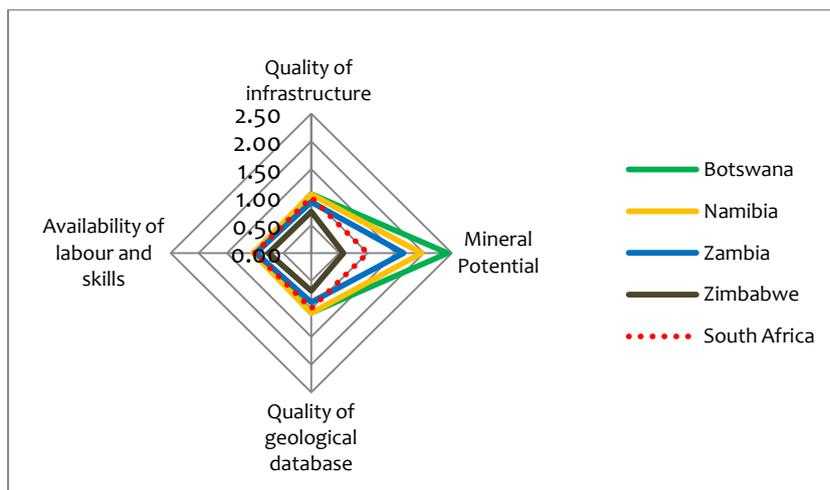
Competitiveness: operating environment (World Economic Forum)



In an alternative view on operating environment, the Fraser Institute data shows almost identical trends, but focuses more on the minerals sector than on the more generic suite of factors examined by the World Economic Forum.

The next figure is derived from figures synthesised from Fraser Institute data, which reflect, like the World Economic Forum data, the opinions expressed by mining company chief executive officers in annual surveys. These graphs clearly show that, despite the obvious advantages of South Africa seen in the figures above, miners prefer operating in South Africa’s neighbouring countries than South Africa itself. Again, Zimbabwe is the notable exception.

Competitiveness: operating environment (Fraser Institute)



In the Fraser Institute perception survey of operating environments, we see a perspective of better geology, greater prospectivity and higher mineral potential in the SADC countries outside South Africa. Resource inventory data do not support this perception, but it is indicative of the preference that mining companies have to working in countries other than South Africa.

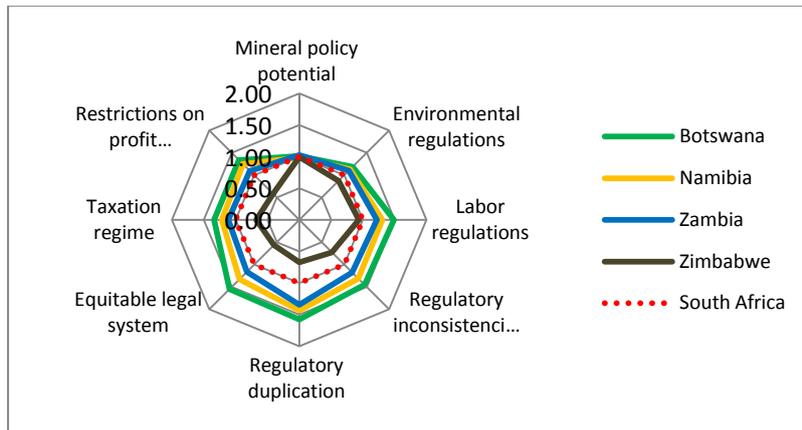
It also reflects a perception of equivalent or less adequate infrastructure to South Africa in Botswana and Namibia which is again probably more perception than fact.

The next layer of operating competitiveness is the statutory environment within which mining companies are bound to operate as this can seriously impair efficiency and increase the levels of operational risk. Most of the Southern African countries have gone through some level of statutory or regulatory reform over the last decade and have fairly well structured and comprehensive regulatory regimes.



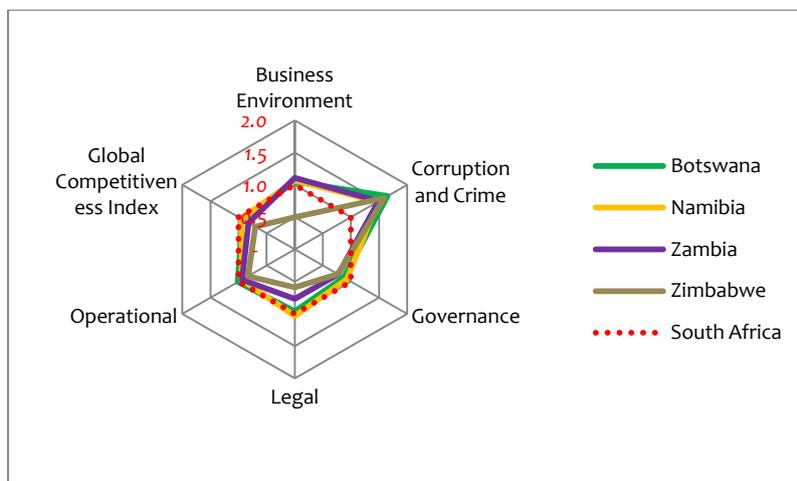
The perception results show that besides Zimbabwe, South Africa ranks lowest in terms of competitiveness in restrictions on profit, taxation regime, equitable legal system, regulatory duplication and inconsistencies, labour relations and environmental regulations. These are the aggregated results of a number of perception surveys undertaken by different organisations such as the World Economic Forum and the conservative Fraser Institute. These were undertaken prior to the release of the SIMS document but while the nationalisation debate was gaining traction.

Competitiveness: policy, statutory and fiscal environment (Fraser Institute)



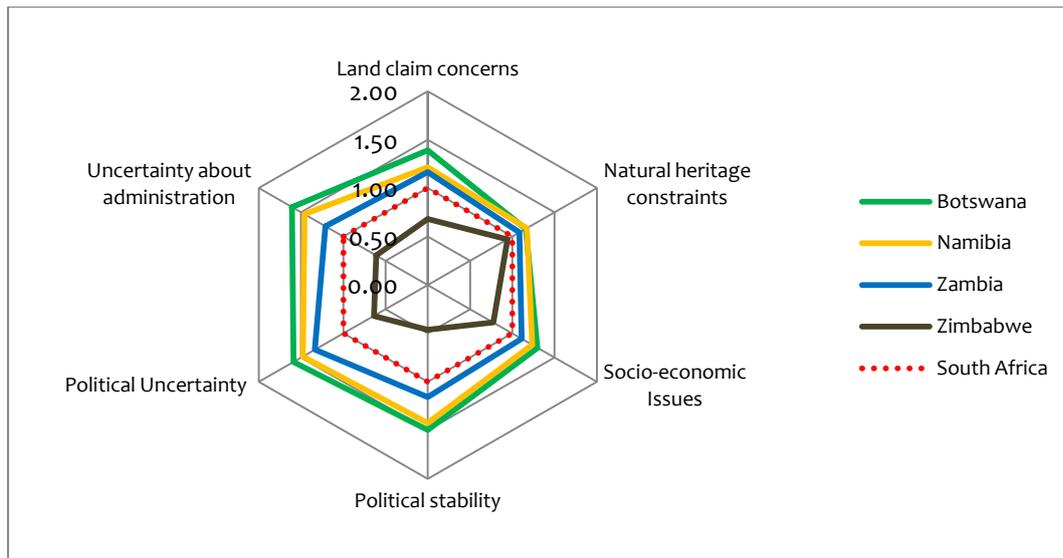
At an operational level one cannot ignore the economic impacts of corruption, violence and crime on any business, let alone mining. There is a strong message from this figure on the perception of the business costs of corruption, crime and violence in South Africa. The perception is that South Africa is by far the most uncompetitive. With the calls for nationalisation, property rights in South Africa perceived as having a higher risk profile.

Competitiveness: legal framework, corruption and crime (World Economic Forum)



Finally, accepting that perceptions are reality when it comes to critical decision making, one must defer to the political economics of the countries in question. Besides Zimbabwe, South Africa is regarded as the most uncompetitive on all aspects of the political economy. While Botswana and Namibia are nowhere close to South African in terms of resource inventory and mining-related infrastructure, goods, services and skills (despite the indications of the above graphs), ultimately political perception of comfort and risk are the deciding factor. It is here that South Africa and Zimbabwe are palpably at a disadvantage the other SADC countries.

Competitiveness: political economy of the SADC countries (Fraser Institute)



Conclusions on South Africa's competitiveness in the SADC region

In so far as African countries are concerned, the SADC region is undoubtedly the most preferable destination for mining investment. Despite its considerable advantages with respect to infrastructure, goods and services, mining companies clearly do not like operating in South Africa not only because of its difficult regulatory environment, volatile political regime but, more importantly, the aggressive manner in which indigenisation and empowerment regulations are being enforced to the detriment of investment.

The solution therefore appears to be to garner the best what the of the country has to offer by maintaining corporate and back-office facilities in South Africa for logistic, skills and supply chain reasons and using this base as an efficient springboard into exploration and mining in the neighbouring countries.



APPENDIX 1

BI-LATERAL AGREEMENTS

Investment agreements signed by South Africa As on 04 11 2011			
Date signed	Country	Title	Date (yymmdd)
19740403	Paraguay	Economic Cooperation and Investment.	Entry into force: 19740403
19931130	USA	Investment Incentive Agreement.	
19940812	Malaysia	Memorandum of Understanding on Concluding Agreements that Enhance Trade and Investments between the two Countries.	Entry into force: 19940812
19940920	United Kingdom (UK)	Agreement for the Promotion and Protection of Investments.	19980527 (r) Entry into force: 19980527
19950509	Netherlands	Agreement on Encouragement and Reciprocal Protection of Investments. Plus Protocol.	Entry into force: 19990501
19950627	Swiss Confederation	Agreement on the Promotion and Reciprocal Protection of Investments.	Entry into force: 19971130
19950707	Republic of Korea	Agreement on the Promotion and Protection of Investments.	Entry into force: 19970628
19950911	Germany	Treaty concerning Reciprocal Encouragement and Protection of Investment (Plus Protocol).	19980310 (r) Entry into force: 19980410
19951011	France	Agreement on the Reciprocal Promotion and Protection of Investments.	Entry into force: 19970622
19951127	Canada	Agreement for the Promotion and Protection of Investments.	
19951208	Cuba	Agreement for the Promotion and Reciprocal Protection of Investments.	Entry into force: 19970407
19960222	Denmark	Agreement concerning the Promotion and Reciprocal Protection of Investments. Plus Protocol	19961107(r) Entry into force: 19970423
19960801	Senegal	Letter of Intent regarding the Promotion and Reciprocal Protection of Investments.	Entry into force: 19960801
19961128	Austria	Agreement on the Promotion and Reciprocal Protection of Investments plus Protocol.	19971003 (r) Entry into force: 19971130
19970609	Italy	Agreement on the Promotion and Protection of Investments.	Entry into force: 19990316

Date signed	Country	Title	Date (yyymmdd)
19971103	Iran	Agreement on Reciprocal Promotion and Protection of Investments Plus Protocol.	
19971125	United Kingdom (UK)	Protocol to the Agreement for the Promotion and Protection of Investments (20.9.1994).	19980527 (r) Entry into force: 19980527
19971230	People's Republic of China	Agreement concerning the Reciprocal Encouragement and Protection of Investments.	Entry into force: 19980401
19980217	Mauritius	Agreement for the Promotion and Reciprocal Protection of Investments.	Entry into force: 19981023
19980525	Sweden	Agreement on the Promotion and Reciprocal Protection of Investments.	
19980619	Senegal	Agreement for the Promotion and Reciprocal Protection of Investments.	
19980709	Ghana	Agreement for the Promotion and Protection of Investments.	
19980723	Argentine Republic	Agreement on the Promotion and Reciprocal Protection of Investments.	Entry into force: 20010101
19980814	Belgo-Luxembourg Economic Union	Agreement on the Reciprocal Promotion and Protection of Investments.	20030314 (r) Entry into force: 20030314
19980908	Côte D'Ivoire	Letter of Intent regarding the Promotion and Reciprocal Protection of Investments.	Entry into force: 19980908
19980914	Finland	Agreement on the Promotion and Reciprocal Protection of Investments plus Protocol.	
19980924	Canada	Trade and Investment Cooperation Arrangement.	Entry into force: 19980924
19980930	Spain	Agreement on the Promotion and Reciprocal Protection of Investments.	Entry into force: 19991223
19981028	Egypt	Agreement for the Promotion and Reciprocal Protection of Investments.	
19981112	Chile	Agreement for the Reciprocal Promotion and Protection of Investments.	
19981119	Greece	Agreement for the Promotion and Reciprocal Protection of Investments plus Protocol.	
19981123	Russian Federation	Agreement on the Promotion and Reciprocal Protection of Investments.	
19981214	Czech Republic	Agreement for the Promotion and Reciprocal Protection of Investments plus Protocol.	



Date signed	Country	Title	Date (yyymmdd)
19990520	Saudi Arabia	Agreement on Economic, Trade, Investment and Technical Cooperation Plus Protocol.	Entry into force: 20020522 (r)
20000429	Nigeria	Agreement for the Reciprocal Promotion and Protection of Investments.	Entry into force: 20050727
20000508	Uganda	Agreement for the Reciprocal Promotion and Protection of Investments plus Protocol	
20000623	Turkey	Agreement concerning the Reciprocal Promotion and Protection of Investments.	
20000924	Algeria	Agreement on the Reciprocal Promotion and Protection of Investments.	
20001019	Rwanda	Agreement and Protocol for the Reciprocal Promotion and Protection of Investments	
20020228	Tunisia	Bilateral Agreement for the Promotion and Reciprocal Protection of Investments.	
20020614	Libya	Agreement for the Promotion and Reciprocal Protection of Investments.	
20030128	Yemen	Agreement for the Reciprocal Promotion and Protection of Investments plus Protocol.	
20031021	Qatar	Agreement on the Promotion and Reciprocal Protection of Investments.	
20040217	Equatorial Guinea	Agreement for the Reciprocal Promotion and Protection of Investments.	
20040831	Democratic Republic of Congo (DRC)	Agreement for the Reciprocal Protection and Promotion of Investments.	
20041020	Israel	Agreement for the Reciprocal Promotion and Protection of Investments	
20050217	Angola	Agreement for the Reciprocal Promotion and Protection of Investments.	
20050922	Tanzania	Agreement for the Promotion and Reciprocal Protection of Investments	
20050926	Kuwait	Agreement between the Government of the Republic of South Africa and the Government of the State of Kuwait for the Reciprocal Promotion and Protection of Investments	
20051201	Republic of Congo	Agreement for the Reciprocal Promotion and Protection of Investments.	
20060818		Protocol on Finance and Investment	20080619(r)

Date signed	Country	Title	Entry into force: 20100416 Date (yyymmdd)
20070925	Guinea	Agreement for the Reciprocal Promotion and Protection of Investments Plus Protocol.	
20071107	Sudan	Agreement for the Reciprocal Promotion and Protection of Investments.	
20080318	Ethiopia	Agreement for the Promotion and Reciprocal Protection of Investments.	
20080716		Cooperative Agreement between the USA and SACU to foster Trade, Investment and Development	Entry into force: 20080716
20091009	Brazil	Memorandum of Understanding between the Department of Trade and Industry of the Republic of South Africa and the Ministry of Development, Industry and Foreign Trade of the Federative Republic of Brazil for the Promotion of Trade and Investment.	Entry into force: 20091009
20091127	Zimbabwe	Agreement for the Promotion and Reciprocal Protection of Investments plus Protocol	Entry into force: 20100915



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