CHAMBER OF MINES
of South Africa

WHAT IF?

MINING INVESTMENT IN SOUTH AFRICA IN AN IMPROVED POLICY AND REGULATORY ENVIRONMENT

INTRODUCTION

The South African mining industry's real GDP in 2016 was 2.6% smaller than its GDP recorded in 1994. The financial services industry, on the other hand, has grown by 168% in the same period. Is this contrast due to mining's lack of potential or due to regulatory disincentives?

The Chamber recently conducted a survey among its members seeking to assess the answer to this question by asking what impact a better regulatory environment would have on investment plans. The results are enlightening.

The Fraser Institute Investment Attractiveness Index has little doubt about the answer. It ranks South Africa in the top quartile for its mineral potential. Yet, in assessing South Africa in the context of best practice policy, legislation, regulation and operating environment, South Africa continues to rank lower relative to other mining jurisdictions. Clearly there is a fundamental mismatch between the potential and the current outcomes.

The South African mining industry remains moribund as a result of a series of issues that have affected investment, production, transformation and its economic contribution to the economy. These factors include:

1. The lack of a nurturing environment to stimulate long-term investment, exacerbated by a regulator which has failed to build partnerships for growth. For example, the regulator has done little to assist the industry through the current viability crisis and, in some areas, is actually damaging the investment prospects of the sector.
2. Ongoing policy and legislative uncertainty, with the June 2017 Reviewed Mining Charter the biggest blow to the industry.
3. Poor governance in the DMR with political interference in the award of prospecting and mining rights, state capture, unethical leadership, the hollowing out of capacity in the DMR.
4. Infrastructure constraints (for example the electricity crisis and the curtailment of mining to what is possible using 90% of normal electricity supply, and the lack of a dedicated heavy haul rail facility for manganese) have curtailed competitiveness and investment.
5. The exacerbating impact of failing local authorities (and concomitant heightened community protest action) on the lack of trust between business and society and the very real impact that has on mining operations.
6. The uncertain political outlook, coupled with unprecedented low levels of business and investor confidence, act as disincentives for investment in mining in South Africa, but also in relation to other sectors.

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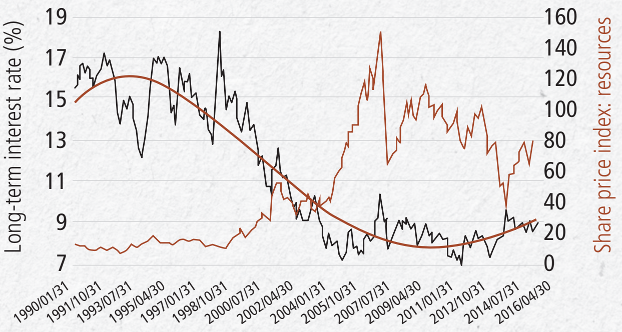
The cost of capital and mining share prices

The sovereign investment downgrades raise the long-term cost of capital which in turn elevates the investment-return hurdle and further restricts the ability of viable projects to go ahead. The graph shows the long-term interest rate. Its rising trend coincides exactly with the pattern of downgrades over recent months. Share price movements coincide exactly with profits recorded in the mining sector.

Long-term (10y) interest rates vs share prices

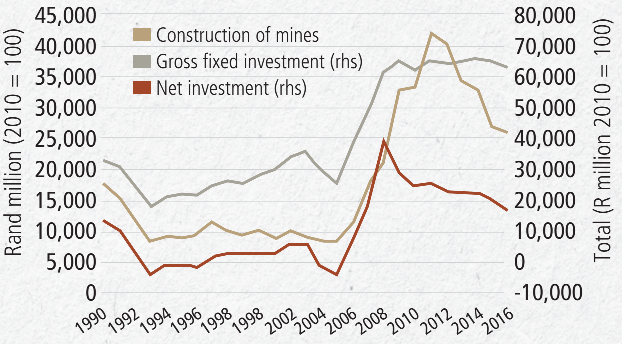


Source: SA Reserve Bank and Quantec

Historical Fixed Investment in the mining industry

The economic and transformational opportunity cost of the investment foregone in the mining sector is profound. Gross Fixed Investment in mining has been stagnant since 2009, and has declined by 5% over the course of the last three years. Net investment has declined by 57% since 2008. Despite commodity prices improving by about 11% (on average) since 2006, output has been stagnant.

Disaggregated fixed investment in mining

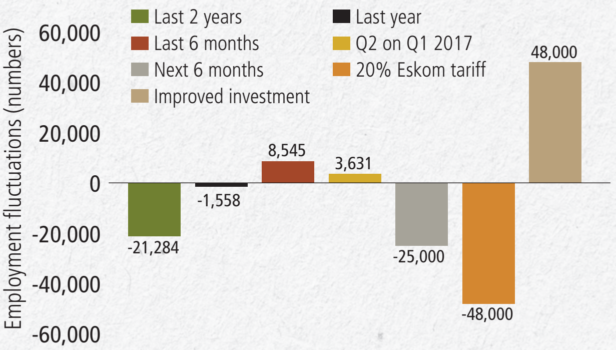


Source: Statistics SA and SA Reserve Bank

Mining employment trends and scenarios

Employment numbers in the sector have dropped by 70,000 over the last five years. This situation has eased slightly of late, but the graph on the right shows the simulated impact of several possible events in the short to medium term future.

Employment mid 2017



Source: Statistics SA and SA Reserve Bank

THE INVESTMENT SURVEY

The Chamber of Mines recently conducted a survey amongst its members in an attempt to understand the investment and employment potential of the mining sector in the event of a return to best practices in policy, legislation and regulation formulation. 'What if the South African mining sector could get back into the top 25% of investment attractiveness rankings?' we asked.

Mine development has long lead times so certainty and a conducive policy environment are important determinants of hurdle rates – the required minimum return on investment applied to a particular project. In an adverse environment the risk premium associated with the operating environment, increases. In an unstable environment, the probability of potential investment not taking place significantly increases, as hurdle rates increase due to current investment risk rendering projects unviable.

A number of companies stressed the point that mining investment is generally dependant on a wide variety of determinants, over and above the political and policy stability of the operating environment (for example the commodity price cycle and forecasted price assumptions are important in making investment decisions). While these points are acknowledged, the purpose of the survey was an attempt to isolate the impact of the policy environment from the operating environment on investment.

In order to understand the potential positive impact of a better policy environment, the Chamber quantified the amount of current capital expenditure already in the system. This was possible by utilising company reports as well as the 2017 Nedbank report on Capital Expenditure Project Listings. A total of 16 companies responded to the survey sent out by the Chamber.

These companies represent a cross section of the various commodities and make up the overwhelming bulk of mining production in South Africa.

The estimated current capital spending in the mining sector (stretching over the next four years) amounts to more than R145 billion. The potential capital expenditure in a more certain and conducive environment (covering at least another three years) could amount to an additional outlay of more than R122 billion. This means that capital expenditure on mining projects could be 84% higher than the current R145 billion. The impact on employment creation, according to the survey results, would be nearly 48,000 people.

Some specific company responses were particularly sobering. Five companies responded that they were not considering any potential new investments, with one company contemplating divesting from South Africa entirely – a decision which will be taken in 2018, if the situation does not improve. They either could not see worthwhile investment opportunities in their South African project pipeline or the adverse South African environment had resulted in these companies focusing their efforts in other geographic locations, and placing further South African investment on hold.

An interesting finding is that the relative contribution to investment of the R122 billion potential spend, does not correlate with the relative employment impact. For example, the coal sector has the highest investment potential, representing 42% of the total potential investment, but only 31% of the employment potential. The converse is true of the gold sector having the highest employment potential (62% of total potential jobs) but only 31% of the capital spend. Of the current capital expenditure, the platinum group metals are spending the most, or nearly 46% of the total.

Commodity price cycle and profitability

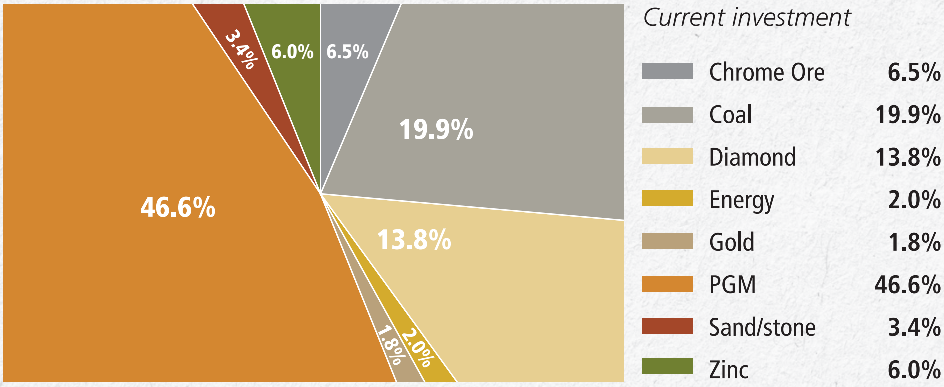
Source: Statistics SA and Chamber of Mines

CURRENT INVESTMENT PER COMMODITY

Current investment analysis			
Sector	**Amount**	**%**	**Estimated completion**
Chrome ore	R9,400,000,000	6.5	December 2033
Coal	R28,900,000,000	19.9	July 2018 to December 2023
Diamond	R20,000,000,000	13.8	December 2021
Energy	R2,900,000,000	2.0	December 2022
Gold	R2,600,000,000	1.8	September 2018 to June 2021
PGM	R67,574,000,000	46.6	April 2018 to December 2022
Sand/stone	R5,000,000,000	3.4	May 2022
Zinc	R8,700,000,000	6.0	March 2018
Total	**R145,074,000,000**	**100.0**	

Source: Nedbank Capex Report, 2017

Current R145 billion investment split per commodity



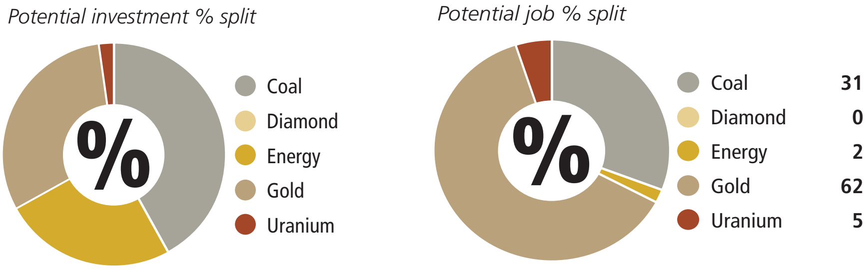
Source: Nedbank Capex Report, 2017

POTENTIAL INVESTMENT AND EMPLOYMENT PER COMMODITY

Potential investment split		
Sector	**Potential investment**	**Potential jobs**
Coal	R51,400,000,000	14,540
Diamond	R40,000,000	25
Energy	R30,000,000,000	1,100
Gold	R37,476,000,000	29,450
Uranium	R3,100,000,000	2 ,500
Total	**R122,016,000,000**	**47,615**

** 25 additional jobs per annum* *Source: CoM survey*

Potential R122 billion investment and employment split



Source: Chamber of Mines