Mining After COVID-19: The South African Case

How South Africa Can Emerge Stronger
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How South Africa Can Emerge Stronger

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While the fight against COVID-19 continues, it is inevitable that the pandemic will have significant impacts on the global economy. As many countries continue to practice social distancing, impose business restrictions, and limit travel, assessments of the economic impacts of COVID-19 are continually shifting. The International Monetary Fund’s midyear assessment predicts that 2020 will see global economic activity contracting by about 5%, with varying degrees of impact across industries and geographies. From our own work with mining players, it is clear that mining will be impacted along at least three dimensions.

First, mining received a direct hit in certain geographies where mines were forced to shut due to COVID-19 outbreaks or general lockdowns. In South Africa, this impact was particularly acute, with our current scenario modeling estimating that 15% to 25% of South Africa’s 2020 output will be lost due to lockdown and resultant ramp-up of production. Second, the medium-term will hold significant uncertainty for commodity demand and prices as the recovery of end-use sectors continue to unfold with uncertainty. Third, mining companies in South Africa and abroad will have to adapt their operating models to ensure safety and sustainability.
In South Africa, we identify eight primary actions for Government and Industry to adapt to the new environment and ensure ongoing competitiveness of the industry.

1. Regulatory reform for global competitiveness
2. Industry modernisation
3. Securing reliable energy supply
4. Infrastructure development
5. Intensified community development
6. Revitalising a country exploration strategy
7. Establishing a task force for execution of key actions
8. Investment promotion

We estimate that approximately 350 mines globally have lost some production caused by country lockdowns. South African mines were particularly hard-hit, accounting for significant mining production losses. This impact is coupled with uncertainty on how markets will develop given that end-user sector demand is constantly evolving.

COVID-19 Impact on Mining
The shift in global demand has seen significant volatility in commodity prices. For example, by the time of publication of this paper, we have witnessed significant volatility in global commodity prices of coal, copper, and aluminium.

Additionally, some mining companies have deferred capital expenditure in the current uncertain investment environment. According to estimates, global mining exploration budgets are expected to shrink by 30% this year.

Comparing mining to other industries, it appears that mining globally was among the industries with the least buffer to absorb such an exogenous hit, given the high level of gearing that already existed before the start of COVID-19, as outlined in Exhibit 1.
South African Mining on the Back Foot

Mining is historically a major contributor to South African GDP, foreign exchange earnings, and employment.

But from 2010 to 2018, South Africa’s mining industry performed poorly with a 10% loss in output, 50,000 jobs lost, and a 45% decrease in annual mining capital investment. Despite the country’s large reserves, deteriorating cost competitiveness and quality of remaining deposits are a cause for concern. In particular, South Africa’s deep gold reserves are becoming more challenging and costly to extract relative to the gold mining costs in competitor countries.

South Africa’s mining industry has struggled to be cost-competitive internationally, due in part to geological factors and lagging investment in technology. Exhibit 2 shows that 64% of South African mining output is in the right (expensive) half of the global cost curve.

In addition to core cost competitiveness, South Africa’s mining sector has had challenges with an uncertain regulatory environment. Ongoing debates and litigation to clarify the latest iteration of the country mining charter, which regulates mining policy, has caused significant uncertainty for investors.

Another major issue that mining companies face is unreliable energy supply. The mining industry suffered the equivalent of 30 days of no power in 2019. This resulted in the disruption of mining production as self-generation was not yet in place. We estimate that the industry lost roughly 4% of total planned output during 2019 due to power outages.
Additionally, some of South Africa’s potential mineral production, particularly in manganese and iron ore, is logistically constrained due to limited rail and port capacity.

Based on the above factors, the South African mining industry started 2020 on the back foot, with little capacity to absorb a large, unexpected, exogenous shock such as the COVID-19 pandemic.

The mining industry, together with the business community at large, has therefore worked feverishly in recent months to respond to the immediate needs of the crisis, but also to recommend reforms to improve the long-term investment environment for growth and competitiveness.

BCG is proud to have supported this effort, with some of the recommendations described in the following sections.

**TAKING THE RIGHT ACTIONS TOWARD RECOVERY**

In order to turn around the South African mining growth trajectory and rebound stronger from the COVID-19 crisis, a core set of collaborative actions are required from all key stakeholders, including government and labour. We see three key sets of actions: fighting COVID-19 spread in mining operations, reforming the investment environment for competitiveness, and finally, strategically transitioning toward climate change resilience.

**FIGHTING COVID-19 IN MINES**

The immediate priority action of government and mining companies should be to avoid a disaster scenario of further spread of COVID-19 across multiple mines. In an operating environment where miners generally live in the same community and

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**EXHIBIT 2 | SA mining lags on cost competitiveness**

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<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
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<tbody>
<tr>
<td>More competitive production</td>
<td>7%</td>
<td>29%</td>
<td>31%</td>
<td>33%</td>
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<tr>
<td>Less competitive production</td>
<td>64% of production in the high half of cost curve</td>
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Source: MinCoSA, SNL Financial

1 6 commodities shown represents 88% of total South African commodity sales. 2 Direct employment.
mines are operated in close proximity, a disaster scenario is probable if the right precautions are not taken. COVID-19 workforce protection should focus on preventing the infection from reaching mining sites, containing the spread within a site, and managing a suitable response to widespread outbreak.

Numerous digital and other solutions, especially for contact tracing, can be applied—even in the South African mining environment. Additionally, in the short-term, managing cash flows and liquidity is also vital. Developing strategic “war rooms” in companies can assist to monitor inventory, supply chain, and financial health.

**EIGHT PRIORITY ACTIONS FOR STRUCTURAL REFORM**
As part of a structural reform package, eight priority actions have been identified to improve mining competitiveness in South Africa.

1. **Regulatory Reform**
South Africa should rethink its regulatory framework to enforce regulation in a much more permanent, stable, and predictable manner. The global best practice approach for this is to legislate all regulatory requirements and to leave as little administrative discretion as possible in regulatory requirements. This would require a significant amendment to the Mineral and Petroleum Resources Development Act (MPRDA). Although this would be an arduous and time-consuming process, it would be massively beneficial to regulatory stability and certainty since, in the long-term, it would mean that mining regulation is subject to full Parliamentary scrutiny and not up to an individual Minister.

2. **Industry Modernisation**
A total of 64% of South African mining output falls on the high half of the global cost curve. Through technology, mechanisation, and digitisation, mines can improve operational performance, cost efficiency, safety, and productivity, thereby extending the life of the mine, increasing production, and creating new and improved job opportunities.

Technology is the key to unlocking cost competitiveness for South African mining, and the industry should proactively look at opportunities for the appropriate investments. Special effort should also be made to bring all stakeholders along on this process, which we believe could be mutually beneficial for all involved.
3. Reliable Energy Supply
South African mining lost between ZAR 7 billion to ZAR 12 billion of production due to load-shedding in 2019 and load-shedding is anticipated to continue until 2022 at least. Privatise generation, either through self-generation or independent third-party generation, is the key to mitigating this risk. The government should further ease the regulatory burden and process barriers with regards to self-generation. This will allow mining companies to achieve stable production and more predictable prices for electricity.

4. Infrastructure Development
Bottlenecks in South African rail and port infrastructure inhibit the export of certain minerals. A detailed feasibility study is to be commissioned to address the immediate bottlenecks, which include:

- Expand the Saldanha Railway capacity to 87 metric tons for more iron ore, manganese, and zinc capacity
- Allow private concessioning of Lephalale–Maputo railway line, targeting 15 metric tons of extra capacity
- Improve productivity of South African ports, which are currently 20% to 40% less efficient than global peers

5. Intensified Community Development
License to operate remains a particularly thorny issue in South Africa. Many mining companies face challenging relationships with local communities, particularly where basic service delivery is not fully functional. It is proposed that all new projects are conceived with inputs from government, industry, and communities, building long-term development plans on what communities should look like in the future. Then, individual projects should feed into long-term community development plans that can be rigorously tracked over time. Mining companies should also prioritise the upskilling of local communities to create long-lasting empowerment.

6. Exploration Strategy
South Africa’s mining exploration has declined from representing 2% of global exploration historically to less than 1% today. Geological database quality also lags behind other jurisdictions, a factor considered to deter mining exploration. In order to overcome this challenge and put South Africa in a better position to encourage exploration investment, a comprehensive exploration growth strategy is required. It should revolve around remapping high potential geographical areas, improving the quality of the geomapping platform, and encouraging risk capital through a flow-through share scheme similar to the Canadian model.

7. Government-Industry Task Force
The South African government and mining-industry have on numerous occasions attempted and concluded “social compacting” processes whereby reciprocal commitments were made. These processes have to-date not yielded optimal results due to a lack of implementation capacity. It is proposed that a joint government-industry task force be created to oversee and fast track all processes required to
improve mining competitiveness in South Africa. This task force should be made up of all relevant decision makers to ensure all required stakeholders are involved.

8. Investment Promotion
The progress of the South African mining industry is currently undermined by negative perceptions of the industry globally. South African mining has challenges with investor branding. To maximise the impact of actions aimed at improving competitiveness, government and industry should work together to improve global perceptions. It is proposed that government and key industry stakeholders develop a consistent narrative on mining in South Africa as an attractive investment destination. Crucially, this narrative should be underpinned with actual reforms to address some of the very real concerns many investors have. This narrative can then be communicated, with credibility, at mining conferences and other key events.

**Stakeholder Perspective: Deshnee Naidoo on the need for reforms**
Mining is a significant contributor to the South African economy despite being in decline pre-COVID-19. In 2019, mining contributed 8% of GDP, added ZAR 95 billion of fixed direct investment, paid ZAR 24 billion in taxes, and supported over 450,000 jobs!

The Mining sector therefore has a key role to play in the country’s survival through the pandemic and to mitigate the forecasted medium- to longer-term dire impacts.

Mining’s long-term investment cycle needs regulatory certainty and fiscal stability. The industry stakeholders must seize the current opportunity to set right what we have been talking about for decades with regard to structural reforms, scarce resource security, and social compacting.

Some critical success factors in implementing the eight priority actions are:
- Bold and collective leadership across all impacted and affected stakeholder groups—we need to rise above the legacy issues
- Leveraging gender diversity (currently at 12%) in every solution
- Re-defining ESG best-practice and integrating it into every action
- Balancing short-term/survival initiatives with medium-term structural reforms
- Embracing new mindsets in reimagining the future of work
- Prioritising key projects as test cases for new/enhanced reforms

Most important now is that actions are implemented with speed. Mining can certainly be the catalyst for the country’s required accelerated economic recovery and growth if all stakeholders commit their part to executing the eight priority actions.

*Deshnee Naidoo is the former CEO of Vedanta Zinc International*
BCG projects that the impact of a “no action base case scenario” could potentially result in a reduction of revenue of $3.2 billion and 65,000 jobs by 2024 relative to 2018 levels. (See Exhibit 3.) The identified interventions aim to reverse the current downward trend.

**TRANSITION TOWARD CLIMATE RESILIENCE**

Finally, in addition to addressing the current structural constraints, the industry is grappling with a longer-term transition toward climate resilience. Due to South Africa’s socioeconomic challenges, climate resilience has often been relegated to a second priority. But by taking a few strategic pivots, the industry could gain a competitive advantage while combating global warming.

According to BCG’s Smart Multiple analysis, mining companies that are in the top quintile of emissions reduction performance have valuations that are, on average, 20% greater than those of their peers in the bottom quintile.

To better position themselves, mining companies in South Africa should begin to ramp up exploration for commodities that are expected to be in higher demand because of climate change. Although deposits might exist, significant investment will be necessary to discover them. The eight priority structural reform actions mentioned earlier will enable an environment where regulators and investors can support exploration activity. Companies could also intensify their market development efforts related to the use of platinum group metals in fuel cells (for vehicles and energy storage), which would partially compensate for catalyst system demand losses.

Mining companies can also improve their operations in ways that will combat climate change and be economically advantageous, ultimately helping to maintain companies’ license to operate.

**EXHIBIT 4 | The six main scope 1 and 2 reduction levers**

**ILLUSTRATIVE EXAMPLE FOR INTEGRATED MINING AND PROCESSING OPERATIONS**

Source: BCG.
To address their scope 1 emissions (those from managed operations, including mines, processing, and power) and their scope 2 emissions (those from third-party providers that supply, for example, electricity or steam), mining companies have six main levers at their disposal—energy efficiency, fuel switching, renewable power, green hydrogen, methane capture, and carbon capture—and should try to work on several simultaneously.

Implementing measures to address climate challenges will require all stakeholders, including mining companies, regulators, and investors, to collaborate diligently. Many mining companies hope that regulators will intensify their efforts to ease rules that currently make it difficult to invest in renewables. Regulators have recently taken steps in this direction, but more needs to be done.

Through effective collaboration, the various stakeholders can transform the mining industry in South Africa into one that is greener and more competitive globally.
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