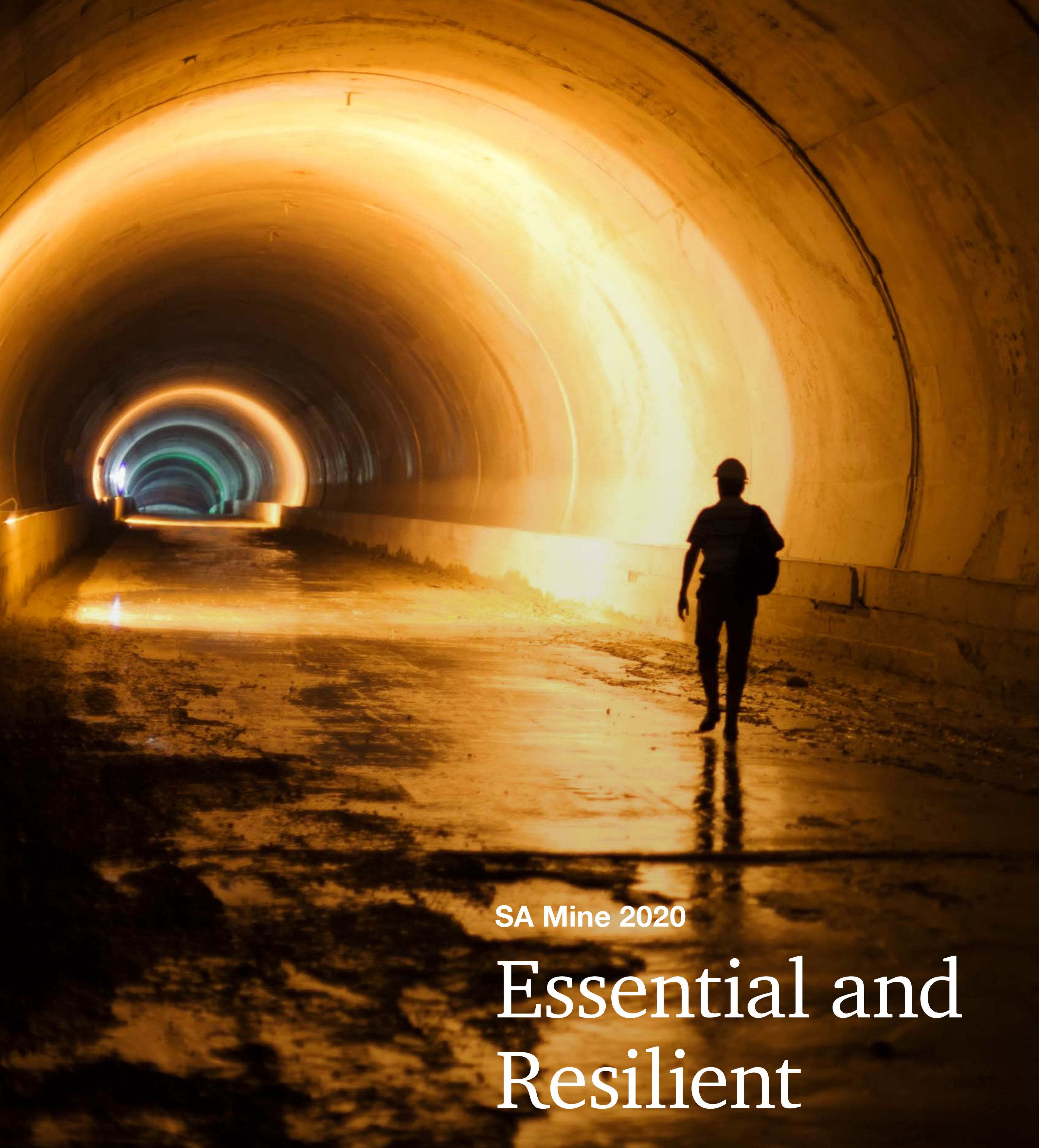


SA Mine 2020

Essential and Resilient

October 2020
12th edition

www.pwc.co.za/mining

Contents

Executive summary

Despite an extremely challenging year, South Africa's mining companies performed on all fronts. Stakeholders benefited from the improved profitability with mining companies strengthening their social licence to operate in supporting their employees and communities in which they operate.

The scourge of the COVID-19 pandemic is certainly one of the biggest challenges the South African economy has had to face. The economy was already battling at the onset of the pandemic. Gross domestic product (GDP) had contracted for each of the three quarters to March 2020. Eskom's challenges continued to impact the economy as load shedding caused widespread disruption. Unemployment was on an upward trajectory, with the economy shedding 2.2 million jobs in the first half of the year and the expanded unemployment rate reaching 42% in quarter 2.

Meanwhile, mining companies continued to enjoy gains in commodity prices, assisted by a weaker rand. Precious metal producers benefitted in particular as platinum group metal (PGM) basket prices increased and investors fled to gold as a safe haven investment amid the COVID-19 pandemic and global trade tensions. The improved profitability resulted in increased gains and distributions to shareholders, a near doubling in taxes paid to governments and strong balance sheets. These gains were achieved despite higher operating costs and decreased production mainly in the June 2020 quarter due to the national lockdown. The mining sector again outperformed the JSE All Share Index and even outperformed the global mining index.

The pandemic highlighted the absolute need to 'build back better'. Mining will play a key role in that recovery. It is therefore unfortunate that despite the increased profitability, capital expenditure only increased marginally.

While a cautious approach is understandable, impediments to investment need to be removed. Liberalisation of the energy market to ensure reliable and cost competitive electricity is essential for mining and potential beneficiation opportunities.

We believe hydrogen can play a transformative role in this regard. Progress in the regulatory environment should continue with a need to streamline processes and improve transparency for existing and potential investors. The mining tax environment should be considered as a whole, with an opportunity to incentivise exploration expenditure. Enabling infrastructure, supporting supply chain and mine-to-market logistics would provide immediate recovery benefits and enhance long-term sustainability. Investment can only be attracted to SA if the mining industry can be cost competitive with its global peers.

Mining companies are often at the forefront of environmental, social and governance (ESG) efforts as illustrated in their COVID-19 response, yet they are often weak on their reporting when it comes to setting targets and measuring themselves. Observers often emphasize the environmental impact of the mining industry without adequate focus on the social and governance aspects of ESG. The pandemic has highlighted the need for a renewed focus from government and business to better peoples' lives and support local communities. As such, this shows a need for ESG to be considered in its entirety.

The mining sector demonstrated its resilience during the past year. It was key in providing support during the pandemic and will be an essential part of the strategy to rebuild South Africa.

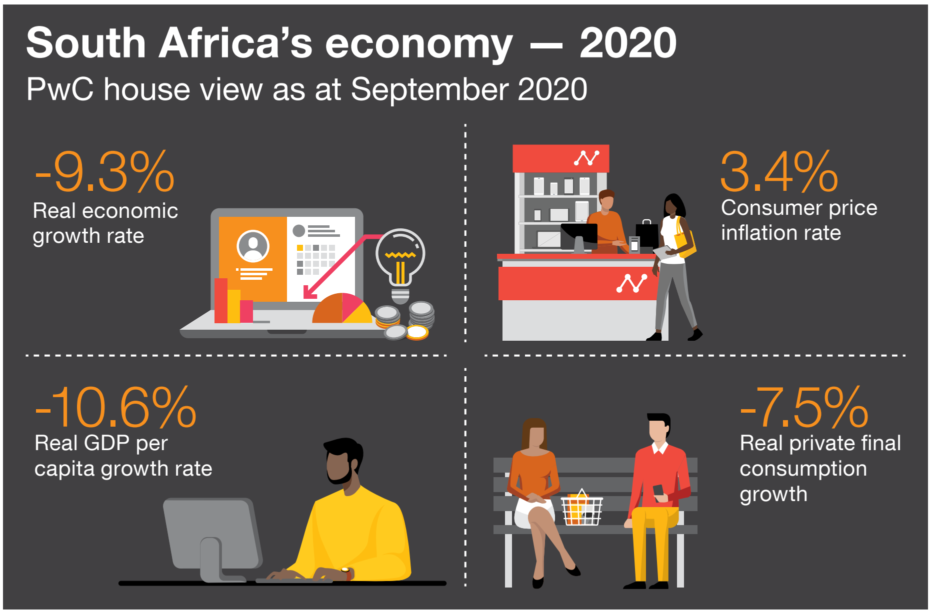
Luyanda Mngadi
Assurance Partner
SA Mine 2020 Project Leader

Andries Rossouw
Africa Energy, Utilities &
Resources Leader

South Africa economic overview

The South African economy was in a recession before the COVID-19 pandemic. The country's GDP contracted for three straight quarters (2019Q3 to 2020Q1) ending March 2020. Private sector activity was on the backfoot for the entire recessionary period due to a myriad of challenges, including policy uncertainty and electricity load shedding.

Mining sector GDP declined year-on-year (YOY) in each of the recession's three quarters. The economic retreat resulted in the country's expanded unemployment rate rising to 42% in the second quarter of 2020, up from 27.6% a year earlier. Business and consumer confidence both fell to record lows at the time.



Source: PwC analysis

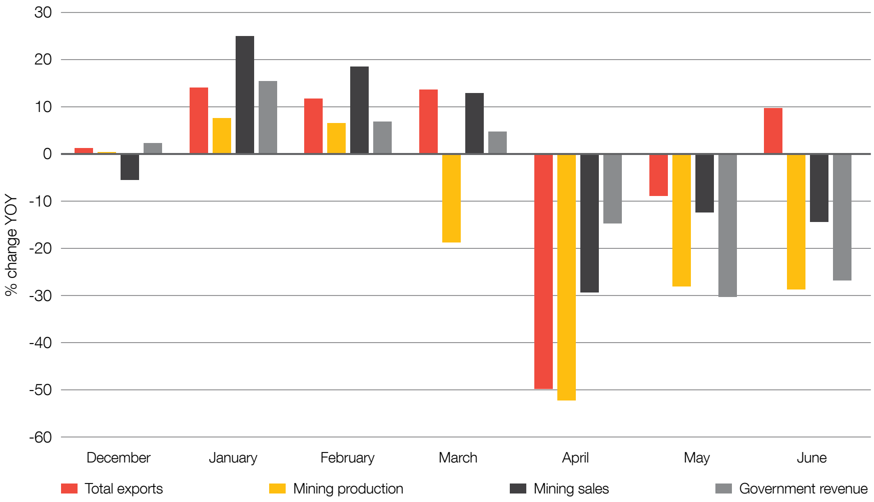
The second quarter of 2020 started with a hard (level 5) lockdown. Mining production declined by 51.2% YOY and sales by 28.8% YOY in April as government regulations limited economic activity to essential services only. This included the production of coal to feed power stations.

The decline in mineral output and sales eased to 27.6% YOY and 12.2% YOY, respectively, under lockdown level 4 in May as more mines — underground operations returned to 50% of capacity, for example — were allowed to open.

The majority of mines were allowed to return 100% of capacity in June under lockdown level 3, though production and sales were still down 28.2% YOY and 14.2% YOY, respectively, due to logistical constraints and international market conditions.

Mining production declined sharply in the second quarter

Figure 1: Mining production, YOY change



Source: Statistics South Africa (Stats SA), South African Revenue Service (SARS) and Trade Map

The significant drop in mining and other industrial output during the lockdown resulted in an average decline of 16.0% YOY in the value of total exports during the second quarter. (The volume and value of manufacturing output dropped by 32.7% YOY during the April–June period).

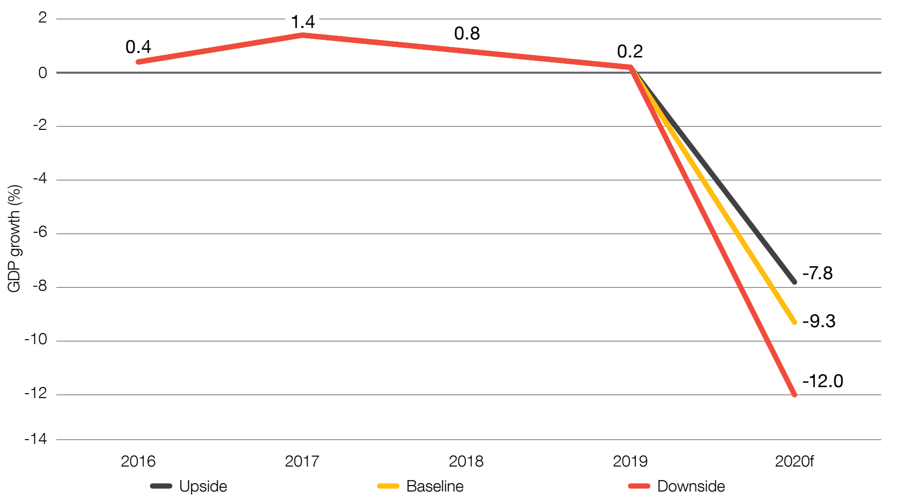
Unsurprisingly, government revenues also suffered.

Stats SA data indicates a 16.4% quarter on quarter (QOQ) and 17.1% YOY decline in economic activity during the second quarter of the year. Based on the overall impact of the lockdown on monthly levels of economic activity, as well as the outlook for the lockdown at a provincial level, PwC expects the South African economy to contract by 9.3% in 2020 (this implies positive QOQ growth during the second half of the year). The overall recession could be smaller — a contraction of around 7.8% — if the country avoids a second wave of infections, avoids regular electricity load shedding, and eases the remaining lockdown restrictions at a faster rate.

There is, however, the real risk of greater load shedding as well as a second wave of infection resulting in some or all provinces moving back to stricter lock down restrictions before year end. This would result in the economy shrinking by an estimated 12.0%.

Even the most optimistic GDP growth outlook is bleak

Figure 2: GDP growth scenarios for 2020



Source: Stats SA, PwC analysis

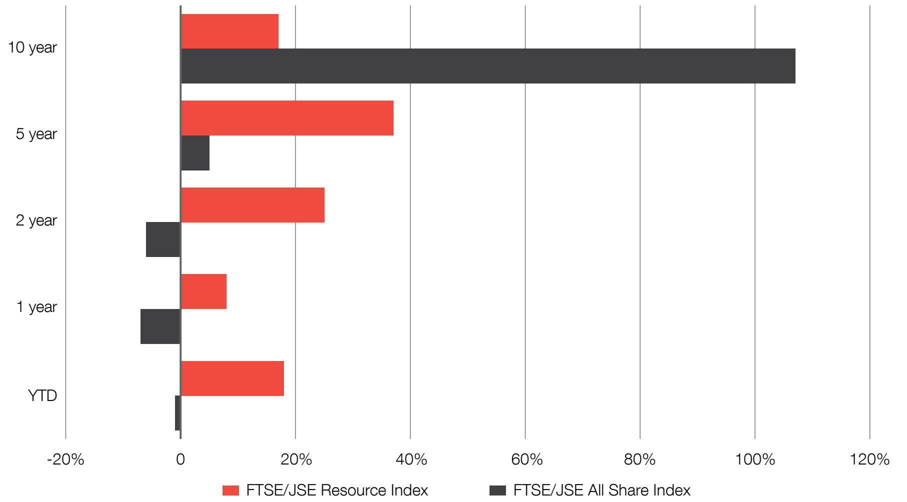
The South African economy is expected to grow by 4.5% in 2021. This will largely be due to base effects from the recession in 2020. However, the start of an economic recovery is also dependent on the correct policy decisions (i.e. key structural reforms) and limited load shedding. PwC expects close to 615 000 jobs to be recovered next year, although this recovery will be less than half of the estimated 1.4m decline in formal and informal employment by the close of 2020. It will take roughly three years (under our baseline scenario) for the size of the economy to recover to pre-COVID-19 levels if the correct policy decisions are made.

Mining sector performance

Among listed companies, the resource and mining sector indexes continued to significantly outperform the JSE All Share Index (ALSI), which was largely driven by the weakening rand and surging metal prices, as investors fled to safe havens. Some of the key players in the sector whose share prices performed extraordinarily between July 2019 and June 2020 include DRD Gold (552%), Sibanye-Stillwater (137%), AngloGold Ashanti (113%), Northam Platinum (104%), Gold Fields (121%) and Harmony Gold (135%), to mention a few.

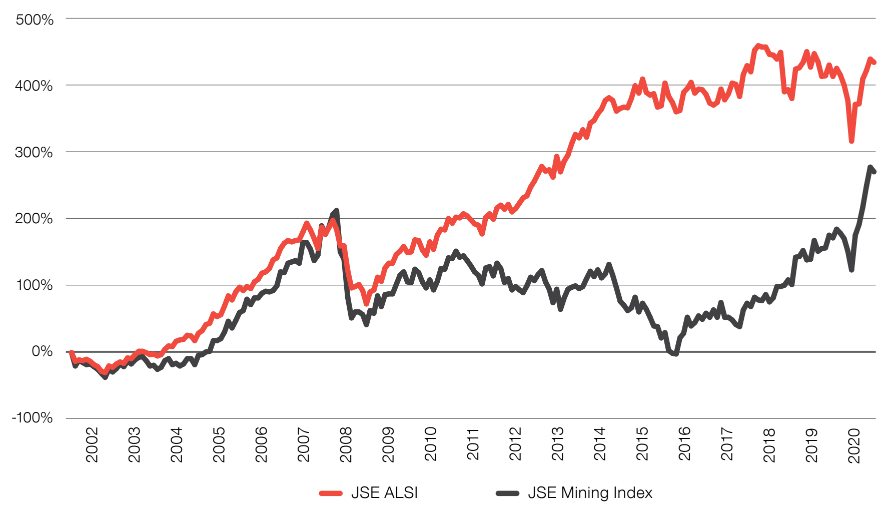
Resources have consistently outperformed the JSE ALSI since 2015

Figure 3: Relative sector total shareholder return performance, 2010–2020



Source: CapitalIQ

Figure 4: JSE ALSI vs JSE Mining Index

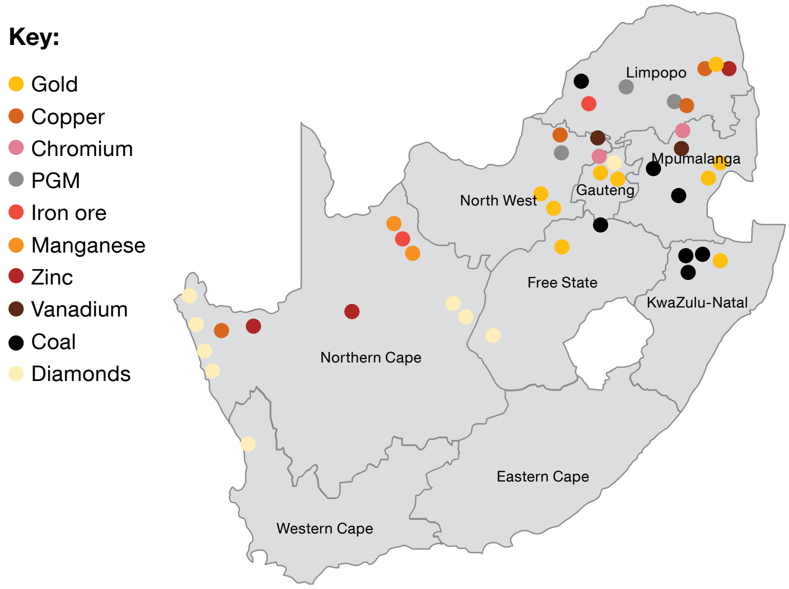


Source: CapitalIQ

Mining in South Africa

Mining is the largest industry (based on GDP) in four of South Africa's provinces, namely, the North West, Limpopo, Mpumalanga and the Northern Cape.[1] The map below shows the most distinctive metals and minerals mined and locations for investment, according to the Department of Trade, Industry and Competition (the dtic):[2]

Figure 5: Location of major mining activities in South Africa



Source: Department of Trade, Industry and Competition

The table below shows the main commodities per province.[3] It also shows each province's contribution to South Africa's total mining gross value added (GVA) with regards to all mining activities in that province.[4]

Province	Main commodities	Contribution to total mining GVA (2019)
Limpopo	Coal, PGMs	25.4%
Mpumalanga	Coal, PGMs	23.2%
North West	PGMs, gold, diamonds	21.9%
Gauteng	Gold	9.4%
Northern Cape	Diamonds, iron ore, manganese	8.0%
Free State	Gold, diamonds	7.7%
KwaZulu-Natal	Coal, construction materials	3.7%
Eastern Cape	Construction materials	0.3%
Western Cape	Construction materials, marine diamonds	0.4%

Sources: The Journal of the Southern African Institute of Mining and Metallurgy, Quantec

1. *"Four facts about our provincial economies", Stats SA, 29 March 2019, http://www.statssa.gov.za/?p=12056*
2. *"Investing in South Africa's Mining and Mineral Beneficiation Sector", Department of Trade, Industry and Competition, 2020. http://www.investsa.gov.za/wp-content/uploads/2020/02/FACT-SHEET_MINING_2020.pdf*
3. *I Watson and M. Olalde, "The state of mine closure in South Africa – what the numbers say", The Journal of the Southern African Institute of Mining and Metallurgy, July 2019. http://www.scielo.org.za/pdf/jsaimm/v119n7/08.pdf*
4. *"Contribution to Provincial GVA", Quantec, 2020. https://www.easydata.co.za/dataset/RGDP/*

As figure 5 shows, the four provinces in which mining has the largest impact on local economies are also home to many of the most sought-after investment locations. However, each of the nine provinces in South Africa plays its own unique role in the mining industry.

Mining's potential economic contribution to the South African economy

The mining industry contributed to the South African economy through job creation, infrastructure development and taxes. To estimate this economic contribution, we conducted an economic impact assessment (EIA), quantifying mining's economic value using an internationally accepted approach, informed by Global Reporting Initiative (GRI) standards. The EIA allows us to capture the economic contribution of the mining industry by showing the interdependencies between different sectors of the economy.

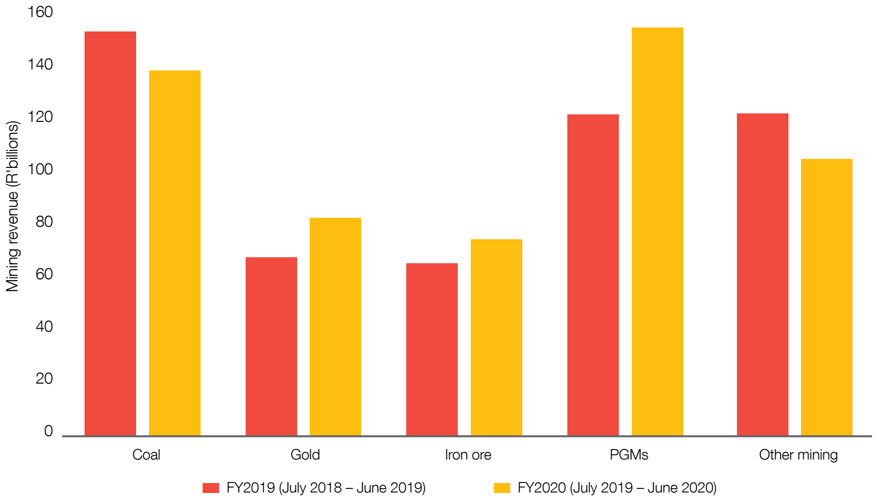
The mining industry's economic contribution to South Africa is made in the form of revenue associated with the day-to-day operations of different mines operating in the country. The contributions are estimated through the impact on national GDP, jobs and public finance.

The mining industry continues to contribute meaningful economic and fiscal value through its operations

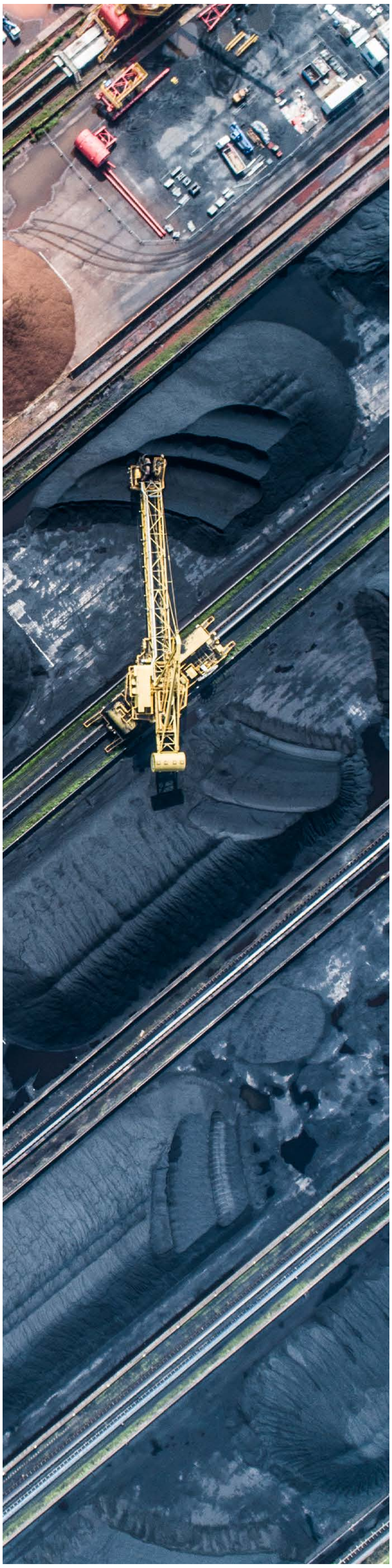
Estimated economic impact of the mining industry in South Africa

Mining revenue for PGMs, gold, iron ore, coal and ‘other mining’ increased from about R517.5bn[5] in FY2019 (July 2018 to June 2019) to R541.9bn[6] in FY2020 (July 2019 to June 2020).

Figure 6: Mining revenue, FY2019 v FY2020



Source: Stats SA, PwC analysis



Due to the changing nature of the mining business, it is important to understand the impact of different sectors in the economy. Through the production of mining products, expenses incurred through day-to-day operation and the people directly employed, we quantified the beneficial impact on the South African economy.

The mining industry’s operations contributed meaningful economic and fiscal value to the South African economy:

- Added R887.6bn (about 7.0%[7] of total GDP) to GDP in FY2019 and R776.1bn (about 6.4%[8] of South Africa’s GDP) in FY2020;
- Created and/or sustained an estimated 1 512 890 and 1 593 979 direct and indirect jobs, on average, in FY2019 and FY2020, respectively; and
- Added an estimated R165.7bn in FY2019 and R173.7bn in FY2020 to total government revenue, through the collection of direct and indirect taxes.

5. *“Mining: Production and sales”, Stats SA,, June 2019. http://www.statssa.gov.za/publications/P2041/P2041June2019.pdf*
6. *“Mining: Production and sales”, Stats SA, June 2020. http://www.statssa.gov.za/publications/P2041/P2041June2020.pdf*
7. *The real GDP of the South African economy over the period June 2019 to June 2020 = R12 046 282 million. Source: “Gross domestic product:Second quarter 2020”, Stats SA, 2020. http://www.statssa.gov.za/publications/P0441/P04412ndQuarter2020.pdf*
8. *The real GDP of the South African economy over the period June 2019 to June 2020 = R12 046 282 million. Source: “Gross domestic product: Second quarter 2020”, StatsSA, 2020. http://www.statssa.gov.za/publications/P0441/P04412ndQuarter2020.pdf*

Investment in mining and the resultant production contributed positively to economic development in South Africa.

Figure 7: The mining industry's estimated economic contribution through its day-to-day operations

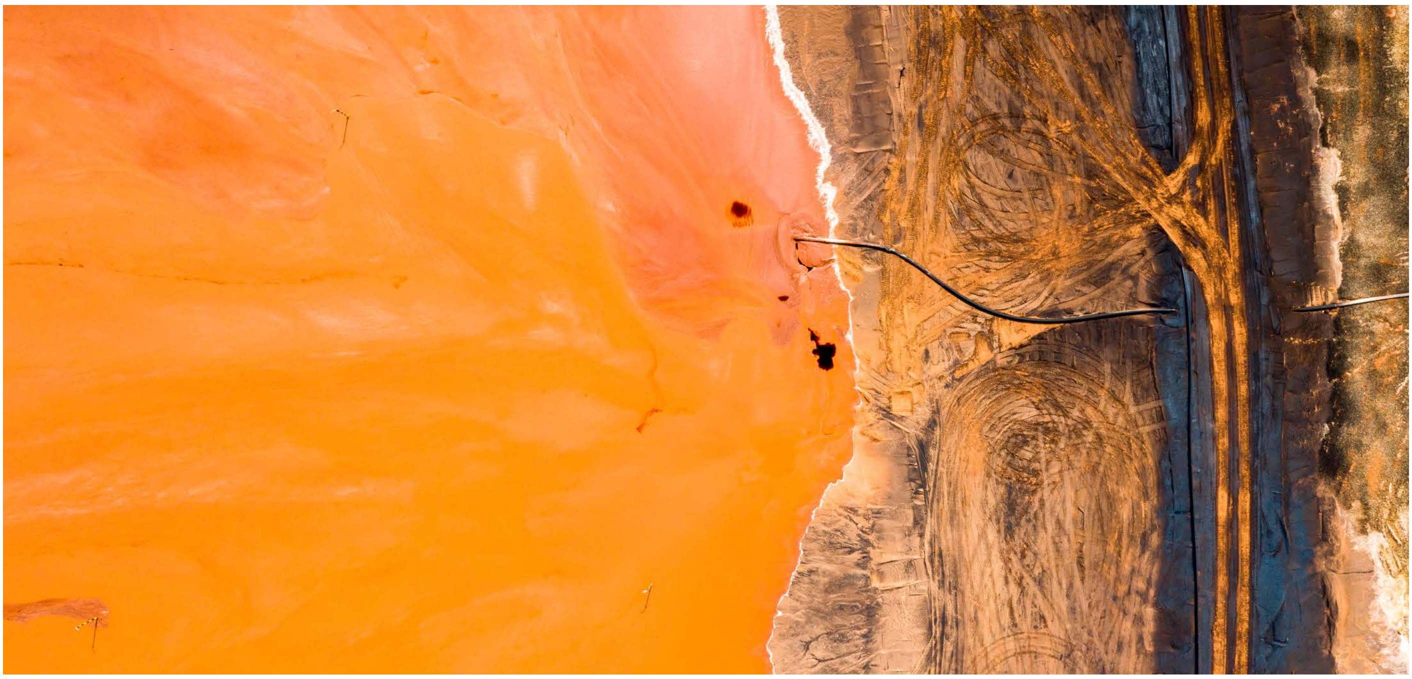
	Year	Coal	Gold	Iron ore	PGMs	Other mining	Total South Africa
Total impact on GDP (Rbn)	FY2020	201	112	98	227	138	776
	FY2019	267	110	103	215	192	887
Total direct and indirect jobs impact (thousands)[9]	FY2020	320	216	181	622	255	1 594
	FY2019	353	177	159	526	297	1 512
Total impact on tax revenue (Rbn)	FY2020	45	25	22	50	31	173
	FY2019	49	21	20	39	37	166

Source: PwC's Strategy& analysis from Social Accounting Matrix for South Africa

It is evident that investment in mining, and the resultant production, contributed positively towards improving economic development in South Africa. In addition, it also has a positive impact on local communities and the South African Government in terms of job creation, poverty alleviation and contribution to public finances.

Mining sector dependencies and linkages

Mining in South Africa accounts for about 66% of the country's exports. The sector therefore plays a vital role as foreign exchange earner from the trade of minerals such as gold, platinum, diamonds and coal.



9. *Increased jobs numbers for 2020 are based on the impact of increased revenues on employment.*

Mining in Sub-Saharan Africa

Africa has an abundant supply of mineral resources, including gold, diamonds, oil, natural gas, copper and cobalt, among others. This has contributed towards increased economic growth over the past two decades, with the continent's resource-rich countries expanding at a faster rate than their global counterparts. However, this expansion has not resulted in the desired improvement in people's welfare, as is seen in other developing economies. Africa has also continued to experience increased political risks, as well as risks from government intervention, with COVID-19 creating additional pressures for the mining industry.[10,11]

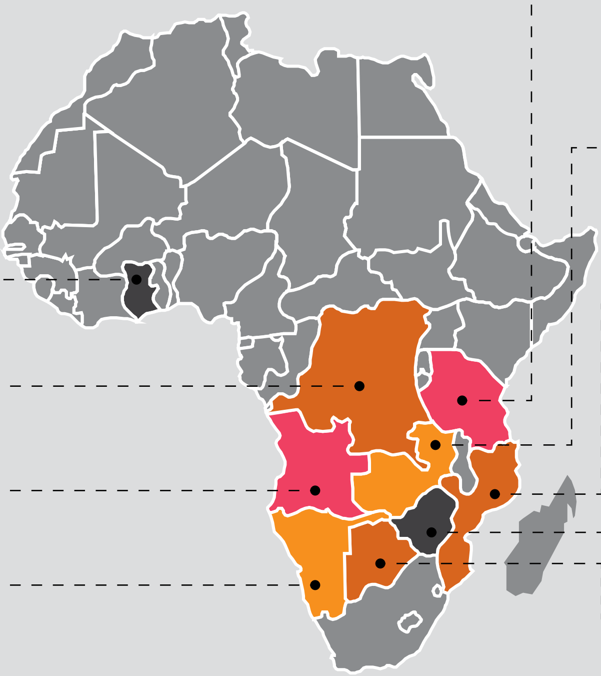
Nonetheless, Africa remains an attractive destination for foreign investment, with some of the largest mineral deposits in the world. Resources, once mined, are used in a variety of industrial, energy, medical, manufacturing and infrastructure development settings — though beneficiation occurs largely outside of the continent. Increased global consumption will continue to push development of the mining industry, as companies seek to produce greater quality and quantities of minerals and materials.[12]

The map below summarises the estimated economic activity created in each of the countries due to the mining industry's revenue and operational expenditure in 2019 and 2020. The categories are revenue, GDP, direct and indirect jobs and tax revenue (total government revenue, through the collection of direct, indirect and induced taxes).

Figure 8: The economic impact of the mining industry in Africa

Key

Industry value/ revenue	GDP	Jobs	Tax revenue



Ghana

	Industry value/ revenue	GDP	Jobs	Tax revenue
2019	USD6.8 bn	USD4.5 bn	41 000 jobs	USD1.3 bn
2020	USD7.7 bn	USD5.2 bn	47 000 jobs	USD1.5 bn

DRC

	Industry value/ revenue	GDP	Jobs	Tax revenue
2019	USD7.7 bn	USD8.4 bn	68 000 jobs	USD4.6 bn
2020	USD7.2 bn	USD7.8 bn	63 000 jobs	USD4.3 bn

Angola

	Industry value/ revenue	GDP	Jobs	Tax revenue
2019	USD768 m	USD1.2 bn	12 000 jobs	USD308 m
2020	USD199 m	USD306 m	3 100 jobs	USD77 m

Namibia

	Industry value/ revenue	GDP	Jobs	Tax revenue
2019	USD2.3 bn	USD3.5 bn	28 000 jobs	USD933 m
2020	USD2.0 bn	USD2.9 bn	24 000 jobs	USD772 m

Tanzania

	Industry value/ revenue	GDP	Jobs	Tax revenue
2019	USD828 m	USD1.4 bn	8 200 jobs	USD314 m
2020	USD929 m	USD1.5 bn	9 300 jobs	USD352 m

Zambia

	Industry value/ revenue	GDP	Jobs	Tax revenue
2019	USD1.9 bn	USD936 m	22 700 jobs	USD765 m
2020	USD1.8 bn	USD908 m	22 000 jobs	USD709 m

Mozambique

	Industry value/ revenue	GDP	Jobs	Tax revenue
2019	USD1.8 bn	USD2.1 bn	17 500 jobs	USD611 m
2020	USD1.6 bn	USD1.9 bn	15 000 jobs	USD554 m

Zimbabwe

	Industry value/ revenue	GDP	Jobs	Tax revenue
2019	USD1.5 bn	USD312 m	4 000 jobs	USD125 m
2020	USD1.4 bn	USD291 m	3 800 jobs	USD117 m

Botswana

	Industry value/ revenue	GDP	Jobs	Tax revenue
2019	USD4.2 bn	USD1.9 bn	41 500 jobs	USD1.7 bn
2020	USD4.0 bn	USD1.8 bn	38 900 jobs	USD1.5 bn

Source: PwC's Strategy& analysis from Social Accounting Matrix for Angola, Botswana, DRC, Ghana, Namibia, Mozambique, Tanzania, Zambia and Zimbabwe

10. *"Middle East & Africa Mining." Fitch Solutions, 2020. www.fitchsolutions.com*
11. *Punam Chuhan-Pole, Andrew L. Dabalen, and Bryan Christopher Land, "Mining in Africa: Are Local Communities Better Off?" Africa Development Forum, 2017. https://openknowledge.worldbank.org/bitstream/handle/10986/26110/9781464808197.pdf*
12. *"Mining in Africa", 2017. https://www.miningafrica.net/*

The following analysis considers the effect that COVID-19 has had on Africa's mining industry.

Figure 9: COVID-19 and Africa's mining industry

Angola

- State-owned mining house Endiama suspended operations at its Catoca mine (the world's fourth-largest diamond mine) in May.[1]
- Endiama expects production of 2m carats this year compared to an original forecast of 10m carats.[2]
- In June, the government announced the development of an Angolan Diamond Hub and an Angolan Diamond Bourse.[3]
- The recently launched Saurimo Diamond Development Pole will be situated in a free trade zone and endeavours to consolidate gem exports under one organisation and develop the diamond value chain.[4]
- Angola has some of the continent's largest untapped coal deposits and significant iron ore deposits.[5]

Botswana

- Africa's largest producer of diamonds and among the world's major suppliers of the gemstones.[6]
- Diamonds account for 70% of the country's exports.[7]
- Rough diamond production decreased by 27% YOY in the first half of 2020 to 11.3m carats due to the impact of the national lockdown on local production.[8]
- Lockdown started late in March with the biggest adverse impact on heavy industry during April and May.[9]
- The value of diamond exports fell by 68% YOY in the second quarter of 2020 due to weaker global diamond demand.[10]
- The decline in 2020H1 production was less than the Bank of Botswana (BoB) expected.[11]
- After De Beers had to cancel its April rough diamond sale, Sight 4 and 5 continued in May and June, respectively.[12]

DRC

- The DRC is the world's largest producer of cobalt and the continent's biggest exporter of copper.[13]
- The Ministry of Mines anticipates a 20% decline in mining revenues due to the impact of COVID-19 on production and demand.[14]
- Export routes to ports in Tanzania and South Africa were blocked as a result of periods of national border closures and quarantine requirements.[15]
- Several mines reported limited impact on their operations from the COVID-19 pandemic, with some operational lockdowns leading to challenges with transport.[16]

neutral *negative* *positive*

*Please refer to page 50 for Endnotes

Ghana

- More than 90% of Ghana's mining revenue is from gold[17] and it is the largest gold producer on the continent after passing South Africa in 2018 and 2019.[18]
- Small-scale mining accounts for 35% of Ghana's total gold production.[19]
- Mining production has seen some interruption, with disruptions mostly associated with delayed export logistics.[20] Although the mining industry was considered a critical industry and thus not shut down at the height of the COVID-19 pandemic, the shutdown of refineries in other countries and the closure of borders negatively impacted on production and sales.
- Gold production is expected to increase by 2% in 2020[21] and the combination of high gold prices and a pipeline of projects means that gold production will grow steadily in the coming years.[22]
- International gold prices were on average 31% higher YOY in 2020Q2 and financial market investors bought into the safe-haven metal.[23]
- President Nana Akufo-Addo launched three more Community Mining Schemes during August, set to create 12 000 jobs in small-scale mining.[24]

Mozambique

- Coal is the second-largest export product by value after manufactured aluminium.[25]
- Vale reduced production at its Moatize coal project in April and ceased operations in June due to demand constraints.[26] Production will not resume this year.[27]
- Montepuez Ruby Mining (MRM), operating the world's largest known ruby deposit in Cabo Delgado, has postponed new investments until 2021.[28]
- The government exempted coal mining operations from lockdown measures.[29]

Namibia

- Minerals — uranium, diamonds and others — account for 50% of export revenues.[30]
- Mining operations were halted from late March to early May due to the national lockdown.[31] However, mining companies that could prove that adequate COVID-19 measures were implemented could continue mining operations during the national lockdown.
- Uranium production declined by 18.4% YOY in 2020H1 due to both structural and global market factors.
- Mining exploration activities were allowed to resume as of 30 April.[32]

Tanzania

- For the year ended 30 June 2020 gold accounted for 42.1% of Tanzania's export revenues from goods.[33]
- Trade of artisanal gold, tanzanite and diamonds was effectively shut down due to border closures stopping international trade.[34]
- No production of diamonds in the quarter to June 2020 as a result of Petra Diamonds' Williamson diamond mine being put under care and maintenance from April 2020.[35]
- Gold exports increased in value 48.5% YOY during the twelve months to June 2020 due to higher international prices and exceeded receipts from tourism.[36]

neutral *negative* *positive*

*Please refer to page 50 for Endnotes

Zambia

- Refined and unrefined copper accounts for 70% of Zambia's exports.[37]
- Mining company revenues declined 30% YOY in the February-April period.[38]
- The government owes miners approximately USD1.2bn in Value Added Tax refunds which has gravely affected the cash flows of these miners.[39]
- Lower sales volumes were caused by weaker demand, supply chain disruptions and softer global copper prices.[40]
- Jubilee Metals Group announced in early August that it is expanding its processing capacity in the country, aiming for the near-term production of copper concentrate.[41]

Zimbabwe

- Minerals account for two-thirds of Zimbabwe's exports.[42]
- Continued production combined with subdued global demand and supply chain disruptions will likely lead to surplus rough diamond stocks.[43]
- The Zimbabwe Consolidated Diamond Company (ZCDC) had to cancel international gem auctions in April due to travel restrictions.[44]
- Prices paid to artisanal miners for industrial diamonds fell from USD 2 500 per carat prior to COVID-19 to just USD100 during the lockdown due to movement restrictions.[45]
- Diamond production continued at many mines during the lockdown.[46]
- PGM producers were able to continue producing throughout the lockdown period.[47]

Please refer to page 50 for Endnotes

An opportunity to build back better

Companies and investors have increasingly been recognising the importance of embedding an environmental, social and governance (ESG) strategy and thinking into a company's DNA. For observers outside the mining industry, the focus has historically been more on the environment than social and governance aspects. The COVID-19 pandemic has called renewed attention to the vulnerabilities in South Africa's social and economic fabric, the need to consider ESG as a whole and mining companies' ability to support local communities.

There has also been a global call for companies and governments not to return to a pre-COVID-19 'normal' scenario, but concentrate their efforts on the opportunity that the pandemic has created to 'build back better'. Such an approach could further contribute to helping South Africa achieve the just transition to a low carbon economy envisioned in the National Development Plan (NDP) as well as ensuring the company's continued social license to operate.

Given the South African mining industry's specific current context , we have identified **four key ESG focus areas that should be top of mind** for any company that wants to build back better, ensure a just transition to a new economy and enhance their social license to operate. These are:

- **supply chain resilience;**
- **measuring impact;**
- **climate-related risks; and**
- **resource efficiency.**

We have analysed the published reports of the mining companies considered in this publication to assess the degree to which they are speaking about and incorporating ESG issues into decision making. Not all companies have released their 2020 integrated/sustainable development reports at the time of writing. Furthermore, we trust that the new relevance COVID-19 has brought on these topics will result in further improvements in ESG reporting in the near future.

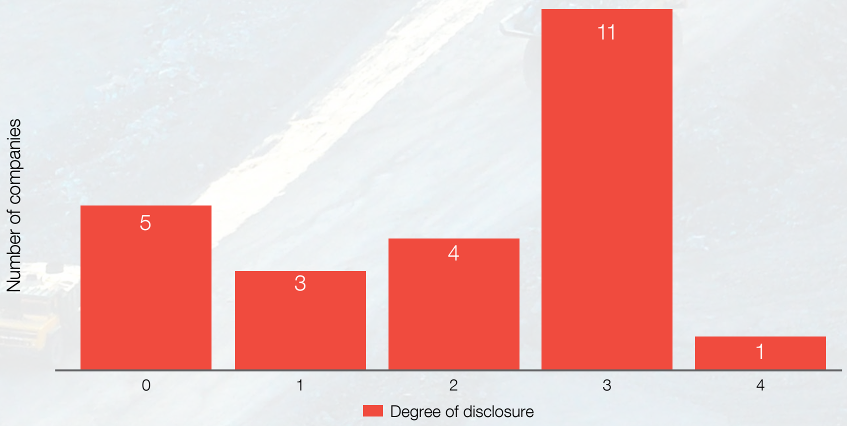
The most recent published reports of each company were awarded a score from 0–4 based on how their reports speak to each of these four focus areas:

- 0 — Not reported
- 1 — Descriptive comment on focus area
- 2 — Descriptive ambition on focus area
- 3 —Quantified KPI on focus area
- 4— Quantified KPI and targets on focus area

Supply chain resilience

Supply chain resilience: Support local suppliers, maintain early or on-time payments, and promote ethical and sustainable practices across supply chains. Maintain a sound view of supply chain risks and opportunities.

Figure 10: Supply chain resilience



Source: PwC analysis

SA Mining industry score: 2.0 out of 4

Many of the mining industry's ESG risks are located within the supply chain. These risks can manifest through political and government challenges, economic instability, extreme weather events or cyberattacks. Mining companies should understand, measure and report on the associated ESG risks within their supply chains.

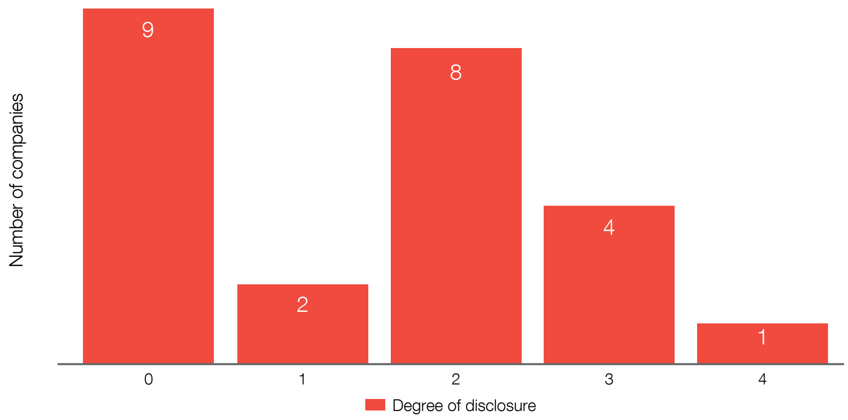
Our analysis found many companies are reporting on their supply chains, but few are setting targets.

The main concern in reporting on supply chains tends to be on initiatives such as local and empowering procurement. Some companies have adopted a policy of precluding vendors that do not have valid empowerment credentials. Other reports concentrate on how companies ensure human rights are considered or responsible minerals are sourced in their supply chains. Anglo American Platinum for example wants to ensure that its supply chain reinforces positive human rights and sustainability outcomes.

Measuring impact

Measuring impact: Quantifying and enhancing the positive outcomes of a business model on environmental, social, fiscal/economic and tax systems.

Figure 11: Measuring impact



Source: PwC analysis

SA Mining industry score: 1.4 out of 4

Mining in South Africa has far-reaching impacts that can be positive, such as the economic growth created from income received by employees; the work government can do because of the tax revenue generated; and the social value created for other stakeholders through changes in their lives. Inevitably there are also trade-offs, such as the positive economic benefit derived from mining versus negative environmental impacts.

It is vital that a company understands and measures the ultimate structural changes that its activities contribute to, and the mechanism through which this change occurs. Such an understanding allows for quantification of impacts and ultimately the ability to align these impacts with the goals and strategies of other stakeholders. For example, Kumba Iron Ore conducted a socio-economic impact assessment of their Kolomela mine on the surrounding communities. One of the findings was that extensive migration to the mining areas undermined socio-economic gains such as employment and local economic development from the mine. However, positive impacts were identified through household surveys, where people acknowledged the mine's contribution to education and youth employment.

In our analysis, we identified disclosures on impacts and descriptive ambitions. Where they are measured, they are mainly measured on the outputs of the business activities i.e. amount spent on training or reduction in greenhouse gases (GHGs), rather than actual impacts of business activities. While it is important to consider and set targets for these internal outputs, they do not give an indication of the direct, indirect and induced positive and negative impacts of these business activities on the external social, environmental and economic environments.

Companies that can measure and talk to impacts of their business activities such as the economic benefit of jobs created, savings on government healthcare spending due to their reduction in GHG emissions or the decreases in social cost of carbon in South Africa will have a much better understanding of the actual value of their business activities and the impact of these on the environment, society, and the economy.

Climate-related risks

Climate-related risks: Conduct scenario analysis on environmental and climate-related impacts and develop net zero carbon strategies to mitigate against future catastrophes by investing in energy efficiency, renewable technologies, low carbon products and services, carbon capture and natural capital carbon sequestration.

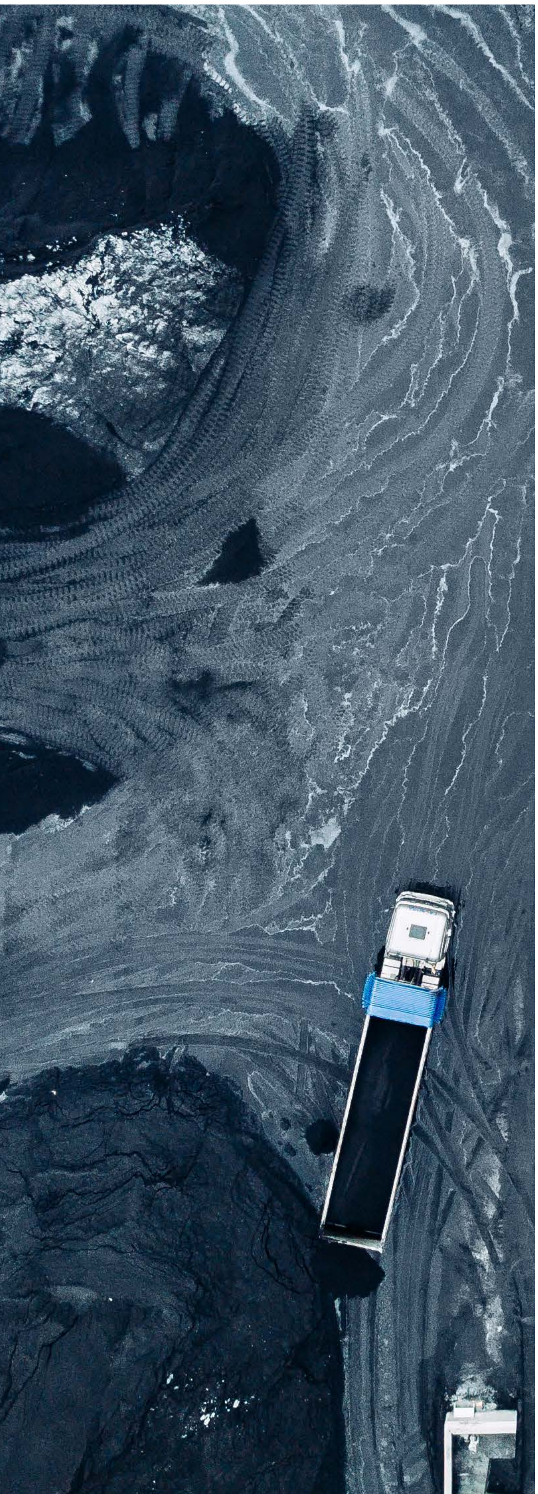
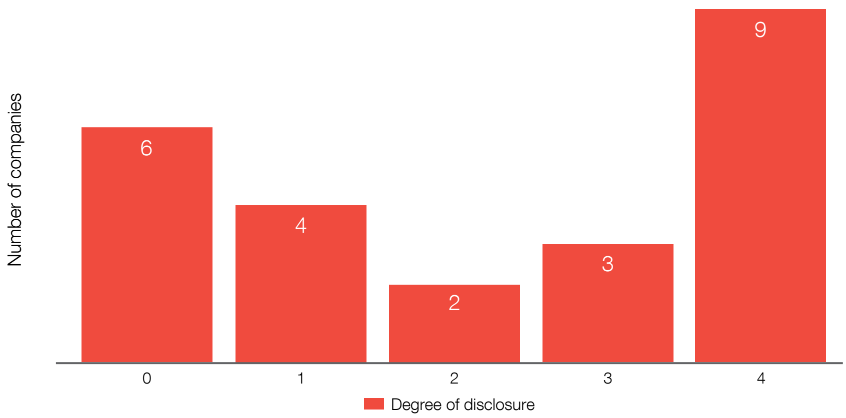


Figure 12: Climate-related risks



Source: PwC analysis

SA Mining industry score: 2.2 out of 4

In the World Economic Forum's *Global Risk Report 2020*, climate-related issues dominated all of the top-five long-term risks in terms of likelihood, the first time in the survey's history that one risk category has occupied all of the top five long-term risks.

Mining companies, historically, only considered the physical risks resulting from climate change, such as rising temperatures, droughts and floods. While these can have a profound impact on mining, such as the risk of heat exhaustion in opencast mining, it is also important to consider how transition risks may influence the ability to create value. For example, policies such as the carbon tax can influence the bottom line and the attractiveness of new projects, while market changes may influence the demand for the resources being mined, such as coal.

Our analysis shows that the current practices of reporting on climate change are diverse. While there are some companies in the middle ground that show ambition, these are outweighed by those setting and reporting on targets and those without any climate change reporting. However, more than half are measuring their climate related impacts and more than a third are setting specific targets.

Climate change scenario analysis is an invaluable tool in understanding what the risk horizon looks like, and what mines can do to mitigate against these risks. Some mining companies, such as Sibanye-Stillwater, have conducted such an analysis in aligning with the requirements of the Task Force on Climate-related Financial Disclosures (TCFD).

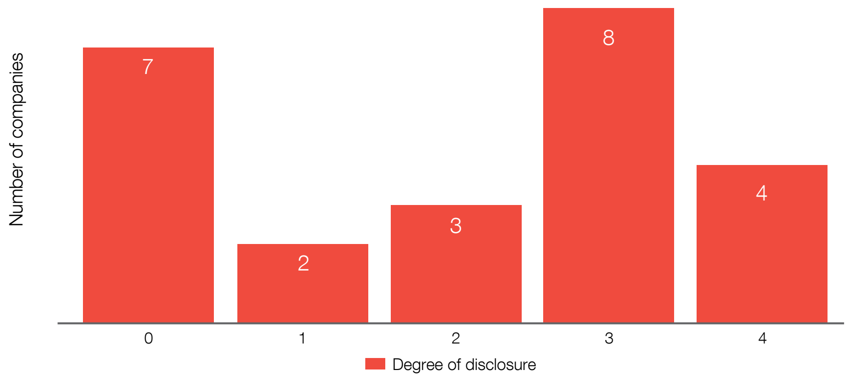
Similarly, Gold Fields uses the National Determined Commitments (NDC) scenarios to ensure close alignment of their strategies with those of the relevant national programmes and policies to address climate change.

Anglo American Platinum's disclosure on climate change impacts follows the Carbon Disclosure Project (CDP) and TCFD frameworks and the company has set a goal to achieve a reduction in greenhouse gas emissions and improvement in energy efficiency.

Resource efficiency

Resource efficiency: Develop circular production and consumption systems that do more with fewer resources and find innovative ways to minimise waste streams that may further exacerbate disturbed environments.

Figure 13: Resource efficiency



Source: PwC analysis

> In a post-COVID world, companies will increasingly be expected to disclose their performance on a range of ESG topics, the pandemic has demonstrated that so-called 'non-financial' information can indeed highlight material financial implications.
>
> — Janine Guillot, CEO of the Sustainability Accounting Standards Board (SASB)

SA Mining industry score: 2.0 out of 4

The natural resources we all rely on are not unlimited. In 2020, Earth Overshoot Day was reached on 22 August. It recognises the day in the year when humanity's demand for ecological resources and services in a given year exceeds what Earth can regenerate in that year. Faced with this deficit, a key way to maximise resources is by designing systems to be circular and recognising the value in waste.

Our analysis shows that half of companies reviewed are reporting on resource efficiency, however only four were doing this against targets. Nearly a third were not reporting on resource efficiency at all.

Consideration of the circularity of the mining industry has been slow, but opportunities could be profitable. For example, the 'waste' a mine stores in the tailings dam could be the vital input for another industry, such as manufacturing.

Moreover, effective waste management is critical to upholding a company's social licence to operate, but it should reach further than simply recycling, diverting waste from landfills and ensuring that contractors remove their hazardous waste.

Conclusion

When considering these four key focus areas, it is clear that many mining companies are already thinking and reporting on them to some extent. The area in which mining companies appear to be strongest is in reporting on their climate-related risks. This seems to be driven by those companies reporting against the TCFD or CDP requirements. However, almost half of the companies analysed don't attempt to measure this, which shows there is a large gap between those measuring and those that aren't.

Numerous companies provide metrics for supply chain resilience, but few are setting targets. This seems to be driven by legislative reporting requirements on supply chain practices.

Conversely, while many companies speak to ambitions around their impact, less than 20% are accurately quantifying and reporting on these impacts. More than half of companies report on their resource efficiency measures, but only 15% actually report targets around this, while a third do not report at all.

While there is a diversity of reporting on supply chain resilience, resource efficiency and climate-related risks in our analysis, companies appear to have a better grasp of them than on measuring and reporting their impacts. The South African economy has long been supported by its strong mining legacy, and it is therefore critical that the industry continues to thrive and adapt to the changing ESG context in which it operates in order to ensure and enhance their social license to operate.

Supply chain: Mining's six lessons learnt

Findings of PwC's recent Global Supply Chain study.

Tomorrow's mines will be 'connected and self-orchestrated ecosystems' — the vision of a 'self-learning or autonomous supply chain' will be enabled through key capabilities, and technologies made possible through investments in and prioritisation of certain initiatives. These are some of the leading findings of PwC's recent Global Supply Chain study.[13]

The study found that the leading 'digital champions' showed the following characteristics:

- A high degree of supply chain transparency and continuous focus on increasing visibility into its greater supply chain ecosystem (mostly upstream, but also downstream depending on commodity) and not just the physical mining value chain;
- Integrated supply chain plans across partners and functions with real-time synchronisation between strategic, financial drivers and execution;
- Smart logistics initiatives playing a key role in the reduction of overall supply chain costs and recognition of these initiatives as the number one investment area; and
- The increasing prevalence and use of enabling technologies like artificial intelligence (AI), machine learning, blockchain and the Internet of Things to solve problems that could not be solved before.

Most importantly, these capabilities were found to drive tangible business value through improved performance, monetary savings and internal and external customer experience and, as a result, allowed leaders to create a gap between themselves and their competitors.

If we use the backdrop of 'tomorrow' as the vision for mining companies, we can look at what mining operations can do 'today' to close the gap that change has brought to play:

- **Building agility and resilience must serve as the guiding star — design principle for future supply chain investments**

  We have all seen the graph from analysts showing that the pace of change is exponential and our ability to respond is linear and creates the notion of a capability gap due to our lack of ability to respond with speed. One of the things the COVID-19 crisis has exposed is that not addressing this gap will have costs (monetary and other). Therefore, our ability to be agile and adapt our practices to new demands on our supply chains at speed is critical in closing this gap and minimising costs, which requires effective ways to deal with time horizons, costs, legacy systems, policies, old practices and culture.

  One way of addressing these is to challenge traditional governance on mines by automating approvals based on budgets rather than going through approval cycles each time a capital request is raised. Because of mines' large capital expenditure this is not a simple matter, but a very solvable problem with technology.

- **Localisation of source of supply top of the risk management meeting FAQs**

  The pandemic has also created a new environment, necessitating procurement controls to keep up with the rapid changes of demand. In the past few months there has been an increase in the number of companies able to respond to emergency procurement needs, which has highlighted the importance of considering your supply source in the context of a worst-case scenario. With the narrative being 'Is localised supply and industrialisation the answer?', will the criteria for supplier source selection change from the traditional global least cost and/or quality model to a local least potential risk model, as availability and customer service become more important?

  Rather than waiting for the government to solve this as part of Mining Charters or other legislation, the industry should take the lead as local procurement drives employment and local economic activity. Mining companies can take this head on in a similar manner as Broad Based Black Economic Empowerment (BBBEE).

13. *"Connected and Autonomous Supply Chain Ecosystems 2025," PwC, 2020. https://www.pwc.com/digitalsupplychain*

- **Collaborative planning is no longer just the next step in maturity level to aspire to**

  The crisis is expediting the inclusion of finance and strategic drivers in the traditionally operationally focused supply chain planning process and vice versa. Taking a holistic view requires greater financial integration that includes considering strategic initiatives and outcomes, improved simulation and modelling, and seamless translation between detail and aggregate levels for better decision-making support. Some call it 'integrated business planning'.

  Many mines have annual budget cycles, but activities in their normal day-to-day operations seldom mimic that. The use of advanced technology like AI can help to 'tune' bills of materials for production or maintenance activities and ensure accuracy and lead-time forecasts lead to just-in-time delivery of goods, preventing excessive stock or delays as a result of non-availability of materials.

> The crisis is expediting the inclusion of finance and strategic drivers in the traditionally operationally focused supply chain planning process, and vice versa.

- **The term supply 'chain' is up for review**

  Testimony by leading businesses in the report suggests that they have all moved on to terms like 'supply chain ecosystems' and 'supply networks', which better represent the current state. This reinforces the argument that the linear supply chain has evolved into a collaborating ecosystem of internal and external stakeholders, upstream and downstream, technology, functions and goals centred around trust and enabled by a connected digital thread.

  Too often suppliers to mining companies are not seen as 'strategic partners' and very little collaboration takes place. Instead contract negotiations and price often dictate these relationships and mining companies need to relook at their supplier relationships and leverage the power of collaboration to solve important issues. Blockchain can be used to ensure trust exists between all parties involved and visibility of goods, services and payments can be achieved that will improve these relationships.

- **Acceleration of the shift from on-premises, asset heavy, type of backbone systems towards more light and agile digital platforms**

  Modern supply chain champions have moved away from the notion that you have to 'own' all infrastructure and systems and have them on-premises and have started to collaborate with cloud providers and ecosystem services to become more agile in responding to technology innovations.

  More and more, we see mining companies willing to embrace standard cloud-based solutions instead of heavily customised on-premises solutions that require intensive maintenance and need to be scaled continuously — which results in additional capital and operational expenditure.

- **The role of disruptive technologies like AI, blockchain and digital are no longer just to differentiate, but a prerequisite for survival**

  With crises like COVID-19 posing unprecedented variables, permutations, scenarios and what-if questions to be answered with a shorter time to respond, we recognise our human capabilities are limited. Technology like AI and machine learning would empower businesses to start at a better base to apply intelligence. More so, the learning capability to move towards a 'self-learning supply chain' (BlueYonder, 2020) and not just predict, but also prescribe and automate. During times of crisis, enabling better visibility and transparency in your supply chain should be a key focus point.

  Of course, all of these capabilities and innovations are of no value to the company if the principle of 'change' or culture is not addressed. Framing the question as 'What are the potential implications of not changing as an organisation?' — i.e. what happens if the organisation doesn't embrace change — may be the most relevant perspective, rather than the traditional approach of calling on reasons for change. Perhaps more important still is the need for mining leaders to actively cultivate and nurture a proactive culture of change in the DNA of their organisations to replace the reactive tactical approach we have often seen.

Read the *Global supply change study report*

The compelling case for hydrogen

In recent years hydrogen has received an unprecedented amount of attention. At the beginning of 2020 (pre COVID-19) the world's hydrogen project pipeline stood at approximately USD95bn. Although hydrogen has been around and well-understood for centuries, as carbon taxation and international sentiment has shifted, its ability to decarbonise traditionally carbon-intensive activities has brought it to the forefront of the global energy transition.

Hydrogen is the most abundant element in the universe; however, it is very rarely found naturally in its pure form, and thus needs to be produced through an industrial process. Hydrogen is categorised into three broad types — grey, blue and green — according to the quantity of carbon that is emitted in their production. Grey hydrogen is produced from natural gas (through steam methane-reforming) or from the gasification of coal. Although grey hydrogen still accounts for most of the global hydrogen supply, its relatively high carbon intensity makes it less desirable than other forms of hydrogen.

Blue hydrogen is produced from the same carbon-intensive feedstocks as grey hydrogen but is twinned with carbon capture technology, thus vastly increasing its green credentials. Blue hydrogen allows companies or countries that have previously invested in grey hydrogen production to increase the lifespan of their assets and allow for the continued utilisation of already identified fossil fuel resources.

However, most investor attention is now being focused on green hydrogen. This production method utilises electricity generated through renewable energy (wind, solar or hydro) and splits water into hydrogen and oxygen molecules through a process of electrolysis.

Although this technology has been around for a long time, it has always been significantly more expensive compared to grey and blue production methods. As the cost of renewable energy and electrolysis technology has plummeted in recent years, the cost of green hydrogen is increasingly reaching parity with its more carbon-intensive counterparts. In countries with high renewable energy potential such as Saudi Arabia, Australia and Chile, green hydrogen has already become the preferred investment choice.

As South Africa has world-leading solar and wind resources, these early mover green hydrogen producing countries have important implications for the future of the South African economy. If the country's resources are properly leveraged and combined with a fertile investor and regulatory environment, it could transition to becoming an exporter of green energy to the world and decarbonise large sectors of its own economy. An additional benefit for South Africa created from the large scale uptake in electrolyser technology is the increased demand of PGMs for use in the electrolysis cathodes.

Traditionally, most carriers of energy are limited to relatively specific applications within the energy mix — petrol for cars, nuclear for power, coke for steel and so on. The economic argument for hydrogen becomes increasingly compelling because of its ability to offer carbon-free energy across almost all energy intensive processes.

Hydrogen can power the vehicle, shipping and rail sectors through its use in fuel cell electric vehicles (FCEV). It can power existing internal combustion engines (ICEs) with carbon neutral or closed carbon loop fuels such as methanol, ammonia or dimethyl ether. It also offers the only practical means to reduce emissions from the airline industry, through the production of synthetic kerosene from green hydrogen. This is especially important when considering that, due to an unfavourable power-to-weight ratio, the electrification of the airline industry (with current technology) is simply not feasible. Fuel cells also have significant application in off-grid power and heat solutions for households, villages, hospitals and remote energy applications.

The use of fuel cells in the telecommunications sector in South Africa is already common practice. These fuel cells are more cost effective, reliable and clean compared to the diesel generator or battery storage alternatives. As the world transitions from a fossil fuel based to a renewables-based energy mix, the problem of the need for instantaneous power supply, coupled with the intermittence of the sun and the wind, becomes increasingly critical.

The key to fixing this is to efficiently store energy in a form that is instantly available to the grid or end user. Battery storage and pumped hydro can help address these issues, but their geographical limitations and high costs at scale make them unattractive options in the long run. Hydrogen offers a solution to these problems.

Per unit of weight, hydrogen is over 100 times more energy dense than a battery and, unlike a battery, it is unaffected by temperature fluctuations or length of time stored. Given that the only input costs for the creation of this energy store is renewable electricity and water, the cost of this at scale is far more compelling than other large-scale energy storage alternatives. This hydrogen can then be converted back into electrical energy through a fuel cell or through direct combustion in a traditional gas turbine power plant. It is this ability to provide both electrical energy and heat from the same source that makes hydrogen such an important part of the global energy transition.

In South African mining, hydrogen has been receiving attention for quite some time. There have been initiatives from some of the country's largest PGM miners such as Anglo American Platinum's FCEV mining truck at Mogalakwena mine or Impala Platinum's FCEV forklift fleet at its Springs refinery. These projects have been heavily focused on the use of PGMs in the catalysts of fuel cells. Although these pilot projects are a good start to bringing hydrogen technology into mining, the focus of their application is quite narrow, looking at decarbonising only the transport portion of a mining operation. In the bigger scheme of things there exists a far larger opportunity to leverage the cross-sector benefits of hydrogen on a microgrid scale, creating a fully green and resilient mining operation.

As the uncertainty around power availability and affordability is set to continue in South Africa for some time, miners are increasingly looking to transition over to self-generation through renewables. The economics of these solutions are often quite compelling as mine sites can be remote (far away from grid connection) and have large areas of underutilised land suitable for wind or solar power generation.

However, unless an integrated energy solution is created through which this renewable energy can be stored on-site, these renewable solutions will struggle to supply risk-free baseload energy to mining operations. One way of achieving this may be through the storage of this energy as hydrogen. A mine could then run all auxiliary systems on renewable electricity supplied from their on-site renewable source. Concurrently, excess electricity can be fed into an on-site electrolysis plant that would produce green hydrogen from water. At times of low renewable energy production this hydrogen could then supply electricity back to the mine. Not only this, but the same hydrogen could power the entire mining fleet and in specific cases, provide heat to on-site industrial processes. In theory, hydrogen can provide a one-stop-shop for a mine's total energy demand.

Inroads into this type of technology solution have been made at Glencore's Raglan nickel mine in Canada, where excess wind energy is converted into green hydrogen at an electrolysis plant. This hydrogen is then converted back into electricity in times of high demand via a platinum catalyst-based fuel cell. This project is currently at small scale, but shows promise that the mining sector can play a pioneering role in this type of integrated hydrogen energy solution.

The mining industry has traditionally been regarded as being difficult and slow to decarbonise. However, now may be the opportune time to change this narrative given that the cost of renewable hydrogen production is expected to fall by up to 60% over the next decade on the back of the reduction in costs of renewable electricity generation and the scaling up of electrolyser manufacturing.

> Now may be the opportune time for the mining industry to decarbonise as the cost of renewable hydrogen is expected to fall by up to 60% over the next decade.

Mergers and acquisitions

We find ourselves in unprecedented times with little consensus about how the repercussions of the COVID-19 pandemic will impact the mining industry as a whole.

Following a period of strategic repositioning since 2015, and an increased emphasis on value preservation and capital discipline, mining companies may find themselves better placed to ride out the storm from an operational perspective.

While the South African mining sector has not seen a significant slowdown in mergers and acquisitions (M&A) activity, most of the deals that have been announced in the second half of the period were mulled long before the increased prevalence of COVID-19. That said, for the period under review, total deal volume increased by almost 40% from 23 to 32 deals from the prior period, while total transaction value has increased significantly. We analysed deals with a disclosed transaction value amounting to USD 3.186bn, which accounts for 32 announced deals from July 2019 to June 2020.

According to recent indications by the Minerals Council South Africa, the total impact of COVID-19 could ultimately result in a YOY South African mining output decline of over 25%.

The outcome of such dramatic production declines, coupled with a number of operations being placed on care and maintenance, has resulted in a number of companies facing extraordinary headwinds and liquidity challenges, both locally and abroad. This creates the potential for more opportunistic transactions in the short term, as companies with robust balance sheets look to acquire attractive assets with strong fundamentals at discounted valuations. We expect that these speculative transactions will likely be the primary driver for M&A activity in the coming months.

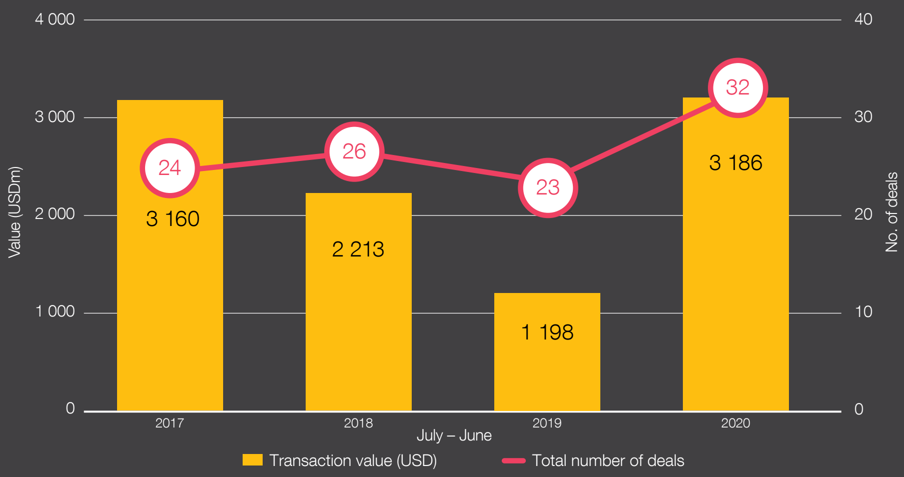
Notwithstanding the fact that a number of large capital or M&A investments will continue to be placed on hold, the other driver to undertake M&A continues to be the consolidation and rationalisation of mining portfolios across the board (particularly within the gold sector). Those far down the line with the strategic realignments (evident in the case of Anglo American), are in a much stronger and defensible position now.

From an operational sustainability perspective, companies have been required to focus their efforts on protecting their supply chains, which have already experienced significant disruptions, by investing in mining services, infrastructure and logistics assets.

Some of the standout deals over the past year:

- Harmony Gold announced the acquisition of AngloGold Ashanti's last remaining assets in South Africa. This deal is significant, not only in terms of its transaction size, but also that it further solidifies Harmony's position as the largest gold producer in South Africa, as well as concludes AngloGold Ashanti's total mining exit from South Africa to focus on its core offshore operations. A key regulatory condition to the deal is that AngloGold Ashanti continues to maintain its primary listing on the JSE as a way to protect the South African gold industry.
- The buy-back of minority shareholding of Assore signifies another end of an era, with the company being delisted from the JSE after 70 years. The transaction provided the minority owners of the already thinly traded (free-float of c.17%) and tightly held stock by the core strategic shareholders, a c.6% premium to the one-year average trading price before the announcement in March at R320 p/share.
- Impala Platinum's 100% acquisition of Canadian PGM miner North American Palladium (now known as Impala Canada) for a total transaction size of R9.5bn accelerates Impala Platinum's drive to become an integrated global PGM producer. This deal gives Implats access to the open-pit and underground operation at Lac des Iles mine in Ontario, Canada.
- Anglo American returned to the global fertiliser sector with the acquisition of the previously LSE-listed Sirius Minerals and its Woodsmith polyhalite project. The acquisition is in line with Anglo American's movement towards later cycle products and its withdrawal from thermal coal, as it looks to dispose of these South African assets over the next two to three years.

Figure 14: Number of announced and disclosed merger and acquisition transactions and values



Source: Merger Market and Bloomberg

Is the South African mining tax regime still fit for purpose?

South Africa has a mining history spanning centuries. However, it was catapulted as a modern mining destination with the discovery of kimberlite pipes in Kimberley in 1870 and the later discovery of gold on the Witwatersrand in 1886. Back in the heyday of gold mining, the mining sector contributed up to 19.4% of GDP, whereas in 2020 it contributed a mere 6.4%.[14]

It is trite that mining in South Africa has changed dramatically over the years. Mining methods applied in the 1800s and those applied currently are vastly different. Likewise, the labour market in the 1800s and that of today are worlds apart. With a mining sector that has evolved and developed over the years, it is a major concern that the mining tax regime has not followed suit and kept up with the evolution of the industry.

As noted by the Davis Tax Committee in its second and final report on hard-rock mining:[15]

> *"The mining industry has changed substantially over the last 20 years, creating an environment conducive to smaller companies participating meaningfully in the mining industry (who often adopt a contract mining business model). Existing tax legislation pre-dated, and perhaps did not envisage, all the tax ramifications flowing from contract mining, which now forms an integral part of the mining dispensation."*

The same can be said for surface mining operations. Furthermore, the composition of minerals being mined today is different to what it was 20 years ago. And what about the current desperate need for investment in exploration in South Africa to sustain the future of the industry (less than 1% of global exploration investment goes to South Africa)?

The question therefore arises, is the South African mining tax regime still fit for purpose in these times?

This is, of course, a known and acknowledged issue in the mining industry. Consequently, various committees have been set up over the years to investigate and consider the mining tax regime. Most recently, the Davis Tax Committee report on hard-rock mining was issued to the Minister of Finance in December 2016. That report included a discussion of a report published by the International Monetary Fund in September 2015 (Fiscal Regimes for Mining and Petroleum: Opportunities and Challenges).

14. *The real GDP of the South African economy over the period June 2019 to June 2020 = R12 046 282 million. Source: "Gross domestic product:Second quarter 2020", StatsSA, 2020. http://www.statssa.gov.za/publications/P0441/P04412ndQuarter2020.pdf*

15. *Davis Tax Committee, "The second and final hard-rock mining report for the Minister of Finance", December 2016. https://www.taxcom.org.za/docs/20171113%20Second%20and%20final%20hard-rock%20mining%20report%20on%20website.pdf*

The Davis Tax Committee's report provided a number of recommendations relating to a need for changes to the current mining tax regime:

> *"...whilst much of the existing mining taxation regime appears to be suitable to address the country's present day needs, certain areas of tax design have been identified as ripe for change. Amongst matters to be addressed are broad legislative structural design issues, legislative inconsistencies (particularly discrepancies between disparate Acts dealing with mining) and certain technical deficiencies in the law."*

To date, there has been no indication by the National Treasury that a revamp of the mining tax regime, to align and cater for a mining sector that has evolved and developed over the years, is anticipated. Instead, the courts, in the recent well-known Benhaus[16] case dealing with contract miners, created turmoil in the industry around the question of whether the modern way of mining (i.e. contract mining) constitutes mining or non-mining operations. This prompted the National Treasury to propose the latest amendments in Sections 15 and 36 of the Income Tax Act, as set out in the Draft Taxation Laws Amendment Bill 2020.

Briefly, the draft amendments to Section 15 propose that the accelerated capital expenditure (capital expenditure) allowable to taxpayers that conduct mining or mining operations provided for in section 15 is only available to a taxpayer that holds a mining right in respect of the mine where the mining operations are carried on.

Without doubt, the proposed amendment, if ultimately enacted in its current form, will have a significant impact on the mining industry. This impact will be acutely felt by contract miners, who play a significant role in modern-day mining. It should be noted that the affected parties are not necessarily well-established mining companies, but are often new entrants to the industry (i.e. junior miners and Black Economic Empowerment companies).

An apparently unintended consequence of the proposed draft amendments is that the limitation of the deduction for capital expenditure to holders of mining rights will not only affect contract miners, but will also impact other situations in which such deductions are claimable by persons other than the holder of a mining right. These include, but are not limited to:

- Surface operations: pre-2004 dumps where rights do not form part of the scope of the Mineral and Petroleum Resources Development Act, 28 of 2002;
- Unincorporated joint ventures where a partner does not hold the mining right but shares in the income and expenditure associated with the mine;
- Smelting and refining operations: These are frequently housed in separate entities to those in which the mining right is held and the extraction of ore takes place and/or ore is acquired from third parties for further processing. Such activities may still constitute mining, but the entity will not have a mining right for the processing of such minerals; and
- Uncertainty around the deductibility of prospecting expenditure if a company intending to mine only holds a prospecting right.

16. *Benhaus Mining v CSARS (165/2018) [2019] ZASCA 17 (22 March 2019).*

Given the scope of the unintended consequences of the proposed draft amendments, it is clear that the legislation in its totality is fragile. As such, one can argue that the piecemeal approach of amending the mining tax regime is not effective and clearly creates other issues. Moreover, a piecemeal change to the mining tax regime to deal with contract mining, without considering the mining tax regime as a whole, risks destabilising the entire industry and should be avoided, particularly in an environment where investment and growth is sorely needed.

The Davis Tax Committee, as well as a number of other bodies and commentators, have tackled the issue of contract mining, among other issues. Recommendations for the discontinuation of the capital expenditure incentive in Section 36 have been provided, and alignment with the manufacturing allowance (40/20/20/20) has been posited as an alternative. It is not clear why such recommendations have not been fully considered by the government.

Another issue that requires urgent consideration concerns the relevance of the various ringfences for mining capital expenditure. These ringfences create significant distortions compared to other industries and act as an impediment to investment.

The mining industry, characterised as it is by substantial upfront capital investment and long lead times, is structurally different from many other industries. As such, the industry requires tax treatment that takes account of these realities, and it is with this in mind that tax policy affecting the mining industry should be formulated.

Without a mining tax regime that affords equitable treatment to miners, investment and growth of the industry will be severely hampered. Similar debates arise around differing tax treatment of different players within the industry (such as, for example, between junior miners and established miners, and between gold miners and other miners. In all of these debates, it is acknowledged that a balance needs to be struck between limiting complexity, avoiding distortions and providing equitable treatment of all players.

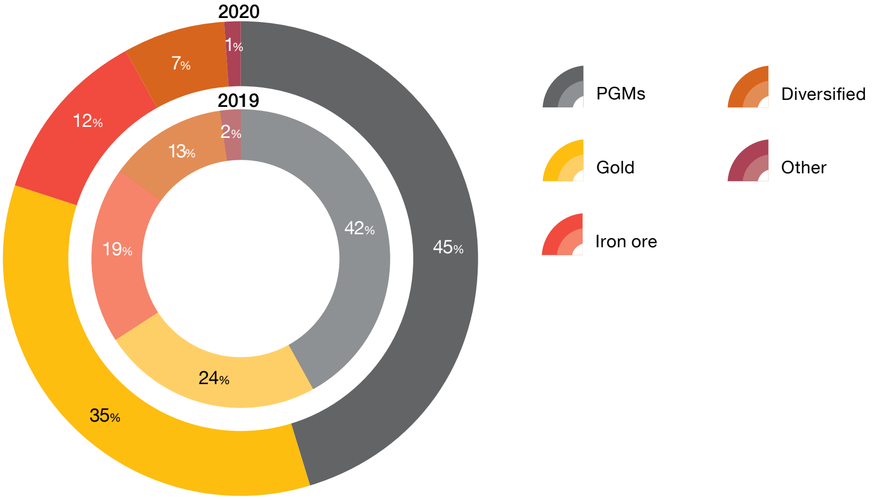
The mining sector, as is the case with many other business sectors, plays a critical role in the country's economy, notwithstanding its shrinking contribution to GDP, particularly as an employer and earner of export income. It is high time that legislators 'put on their mining boots' and got to work by crafting legislation that is current, appropriate and aligned with the commercial and operational realities of the industry.

A comprehensive overhaul of the entire mining income tax regime, which should involve a full consideration of the recommendations of the Davis Tax Committee, is urgently needed.

Financial performance

Market capitalisation

Figure 15: Market capitalisation per commodity



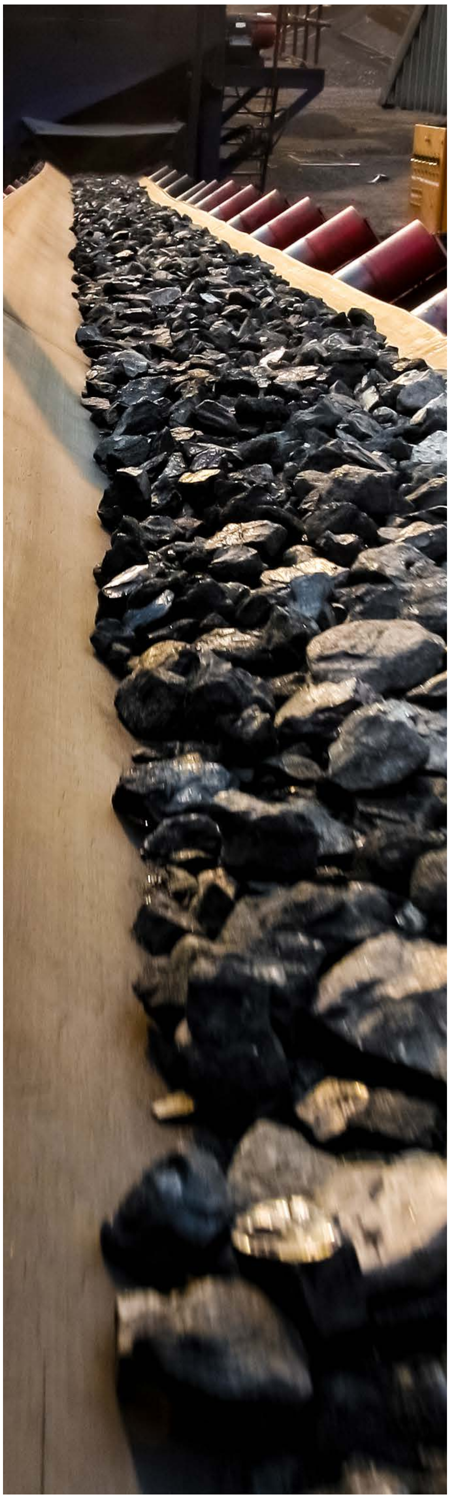
Source: EquityRT, Iress, PwC analysis

Total market capitalisation increased in the current year to R1 280bn from R840bn. This total is a R439bn (52%) YOY increase from 2019, mainly attributable to the increase in market capitalisation of companies within the gold and PGMs sectors.

Gold and PGMs accounted for 80% of the market capitalisation of the companies analysed this year, which, in line with the prior year, continue to dominate the sector. In order to accurately depict the above percentage growth in the market, Sibanye-Stillwater's market capitalisation has been split between the PGM and Gold sector based on contribution to net profit.

The market capitalisation of PGM and gold companies increased by a massive 65% and 122% respectively. This increase was mainly driven by strong financial performance as a result of higher PGM basket prices and investors fleeing to invest in gold — traditionally a 'safe haven' investment — amid nervousness about the COVID-19 pandemic and global trade tensions.

PGM producers Sibanye-Stillwater and Impala Platinum have in the current year — based on their market capitalisation — joined AngloGold Ashanti in the global top 40 mining companies.[17]



17. PricewaterhouseCoopers, "Mine 2020 — Resilient and Resourceful," PwC, 2020. www.pwc.com/mine

This year Assore was removed from the analysis as it was delisted by 30 June 2020, which allowed for the entry of Harmony Gold into the top ten companies. There has been no other change in the composition of the top ten companies for the last three years. There have, however, been some notable movements in the rankings in 2020.

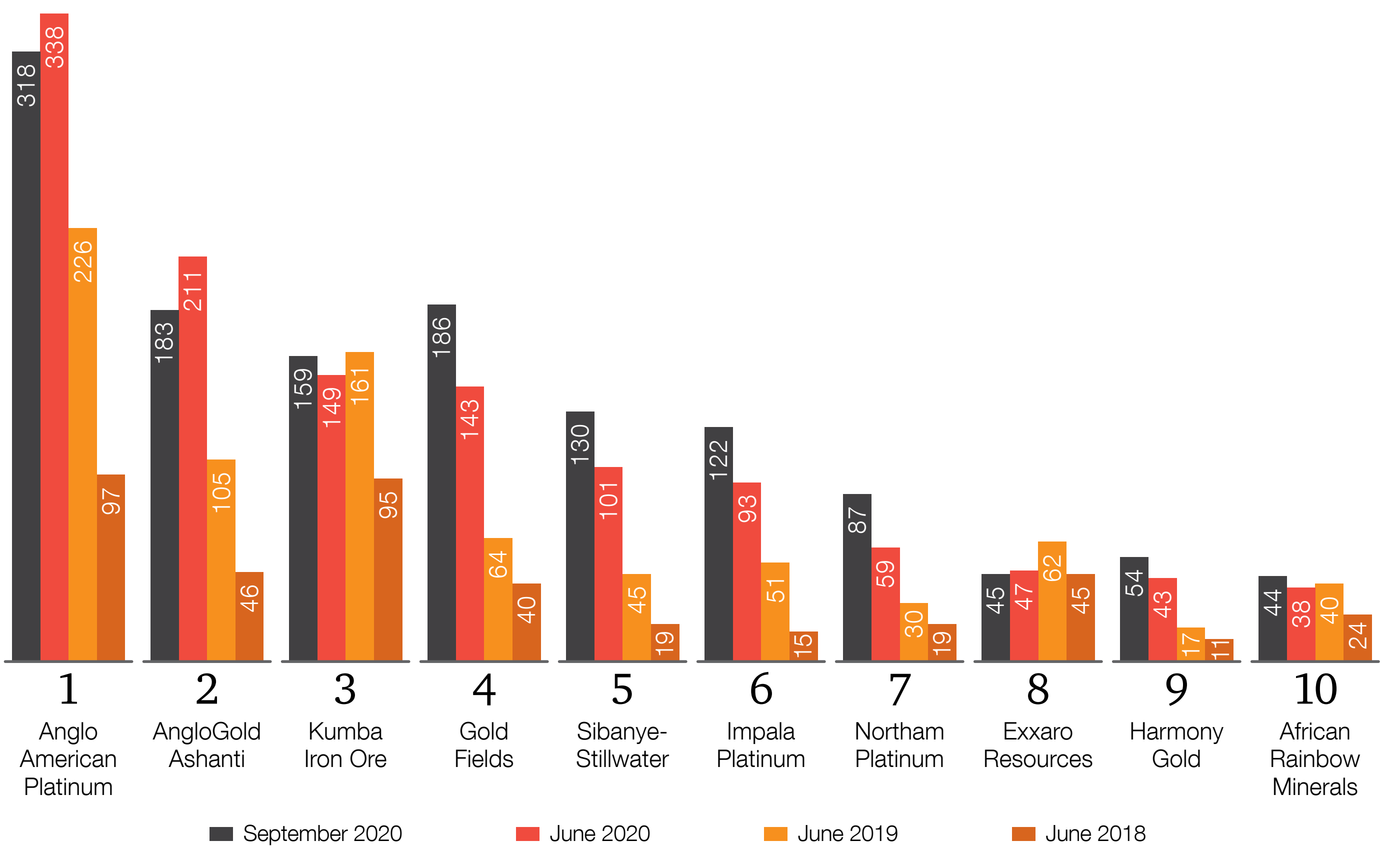
The top three companies have remained Anglo American Platinum, AngloGold Ashanti and Kumba Iron Ore, but for the first time in four years, AngloGold Ashanti has overtaken Kumba Iron Ore and now holds second place after the doubling of its market capitalisation on the back of high gold prices and strong production figures, achieved despite COVID-19 restrictions. As at September 2020, Goldfields have actually moved into second place.

In terms of ranking, Sibanye-Stillwater was the biggest climber, moving from eighth place to replace Exxaro Resources in fifth place with a near 125% increase in its market capitalisation from June 2019 to June 2020.

This increase was followed closely by Northam Platinum, which went from tenth place in June 2019 to seventh place in June 2020. Both of these improvements in ranking are attributable to favourable gold and PGM prices.

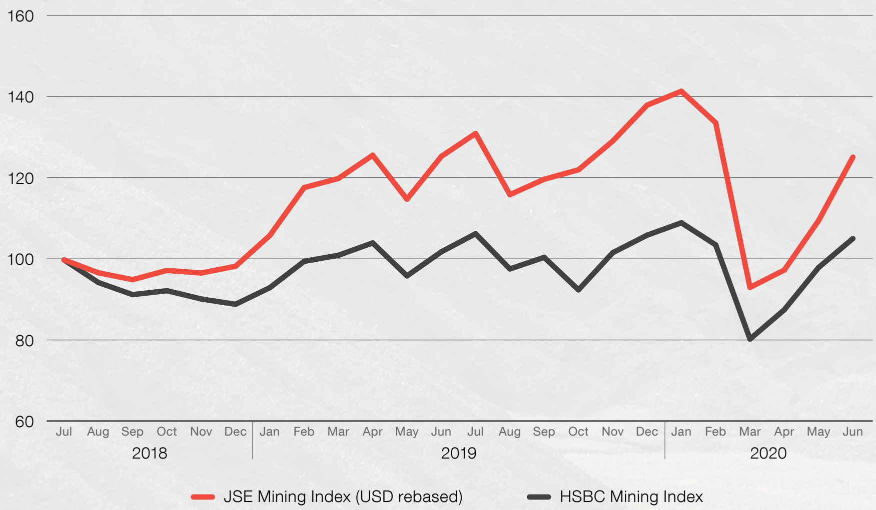
In addition to its strong financial performance, Sibanye-Stillwater enjoyed a record-breaking safety performance at its South African gold operations in 2020 and showed sustained production levels in the midst of COVID-19.

Figure 16: Market capitalisation of the top ten companies as at 30 June 2020 (Rbn)



Source: EquityRT, Iress, PwC analysis

Figure 17: JSE Mining Index vs HSBC Mining Index

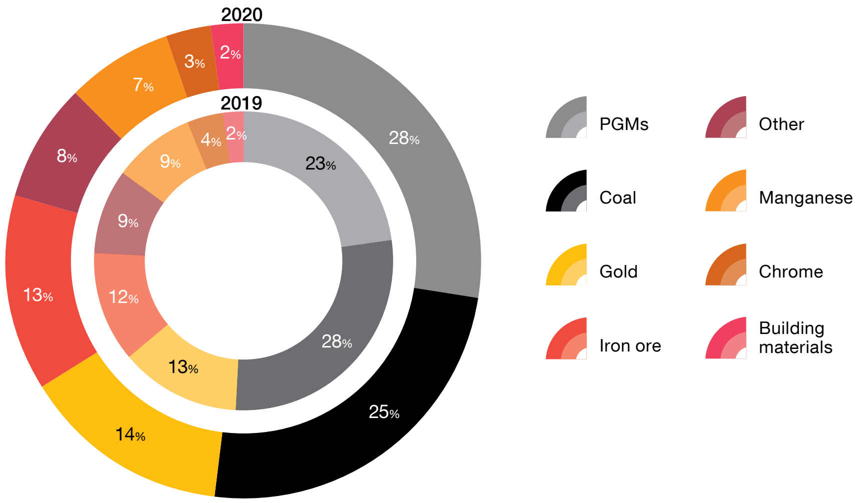


Source: IRESS, PwC analysis

In South Africa, the JSE Mining Index has outperformed the HSBC Global Mining Index consistently since mid-2018. This strong performance is indicative of the resilience shown by South African mines during the pandemic and a reflection of the weighting towards precious metals on the JSE.

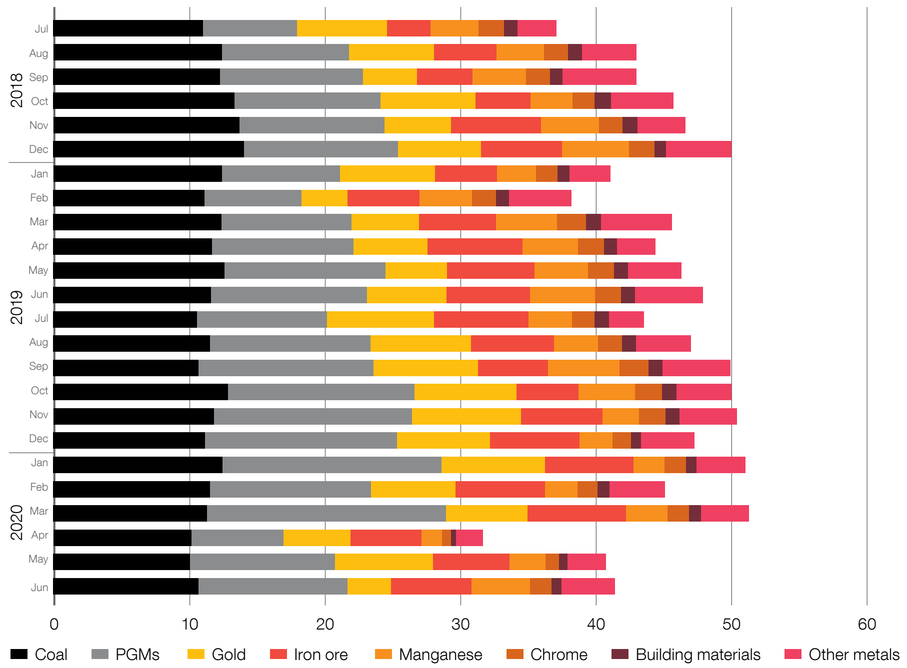
Revenue

Figure 18: Percentage mining revenue per commodity, 2019 vs 2020



Source: Stats SA, PwC analysis

Figure 19: Monthly mining revenue per commodity (Rbn)



Source: Stats SA, PwC analysis

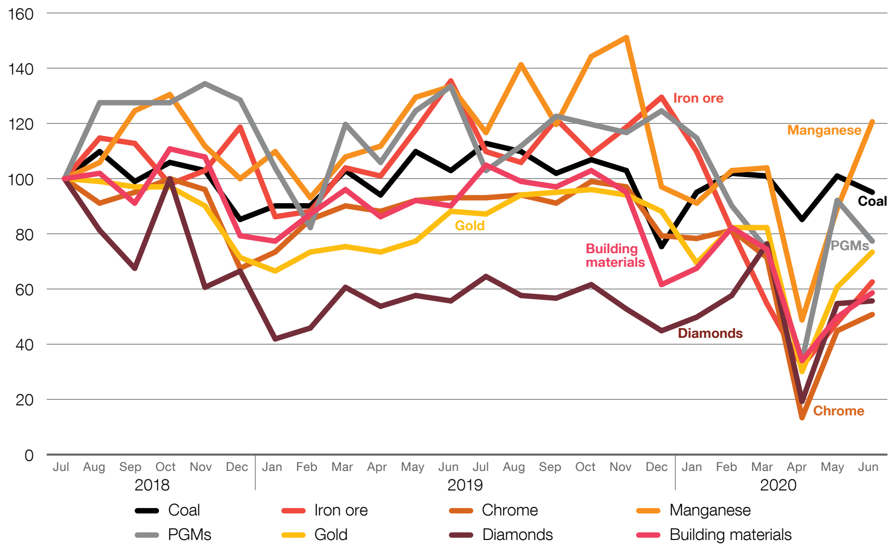
Total revenue in rand terms grew by 4% for the year to June 2020. This was mainly driven by PGMs, gold and iron ore, which saw increases in revenue for the 12-month period. However, in US-dollar terms, total revenue decreased by 4% due to the weakening of the ZAR/USD exchange rate.

The current year saw the PGM basket generating the largest portion of revenue, overtaking coal for the first time since 2010. This was driven by a 27% average increase in the PGM basket price as a result of COVID-19 restrictions, the weakening of the rand and improvements in prices resulted in the PGM sector outperforming the previous year.

The impact of the COVID-19 pandemic is clearly evident from April 2020, with reductions in revenue being seen across the industry. South African PGMs and gold are largely mined in deep-level underground mines and were therefore hardest hit. COVID-19 health regulations are more challenging for deep-level mines resulting in a slower ramp up of production levels. PGM and gold producers indicated that they expect to reach full production levels by the end of the calendar year.

Production

Figure 20: Indexed monthly production per commodity



Source: Stats SA, PwC analysis

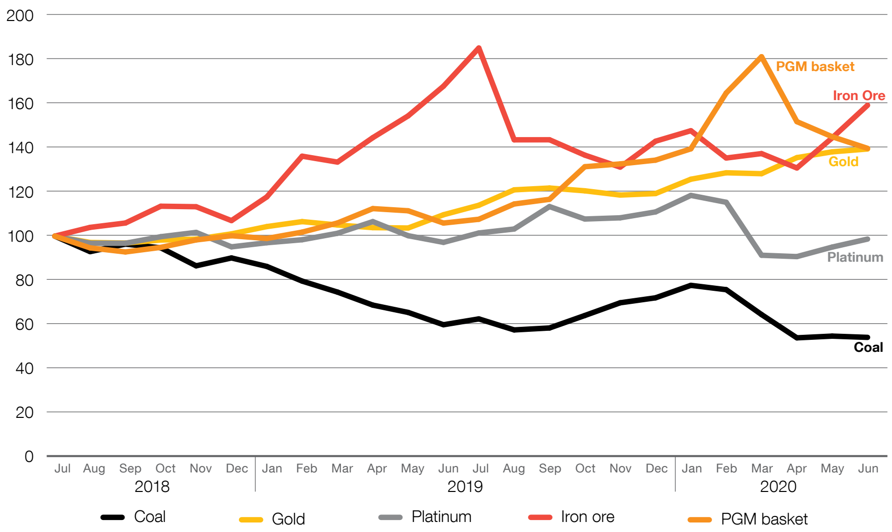
The current period saw production decrease by 8% YOY.

Of the commodities analysed, a 44% decrease was noted in production in April 2020 as a result of the pandemic, the most significant of which was due to reductions in gold, diamonds and PGM outputs. For gold and PGMs the reduction in production was to some extent offset by higher prices, as global buyers realised that they might not be able to get access to South African PGM supply.

Production levels increased in May 2020 following easing of the COVID-19 lockdown restrictions, which accounts for the significant increases in various production levels in the months to June 2020.

Prices

Figure 21: Commodities at US-dollar-indexed prices



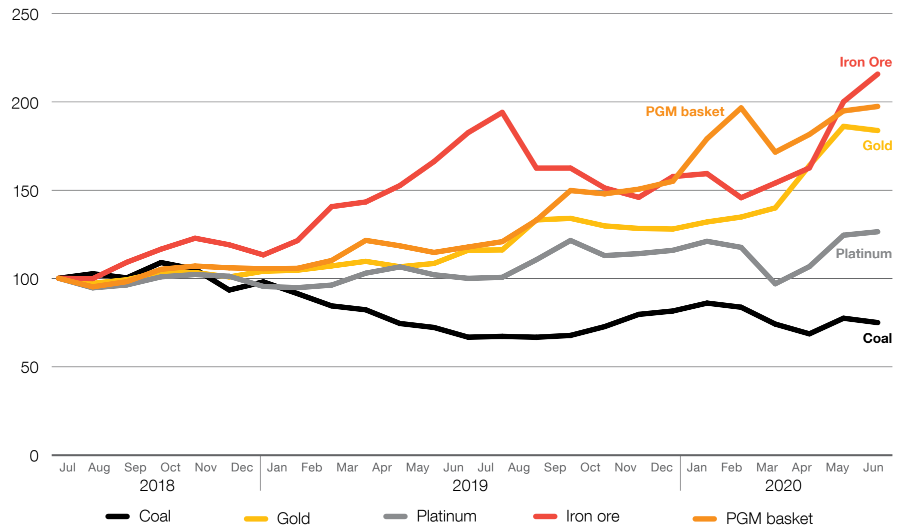
Source: World Bank, PwC analysis

Iron ore was the top performer for the 2020 year of assessment as a result of the reduction in supply from Brazil. This was the result of an unusual rainy season, closure of various mining tailing dams in April 2020, and the suspension of operations as a result of COVID-19. The large spike in the last quarter of the financial year was driven by the lifting of global COVID-19 restrictions and top iron ore consumer, China, pledging to increase spending on infrastructure construction to stimulate economic growth.

From September 2019 to March 2020 the platinum price remained relatively flat. However, COVID-19 was particularly tough on platinum, forcing prices down in March/April 2020 to the lowest in the three years analysed. Increased palladium and rhodium prices continue to fuel the growth in the PGM basket price.

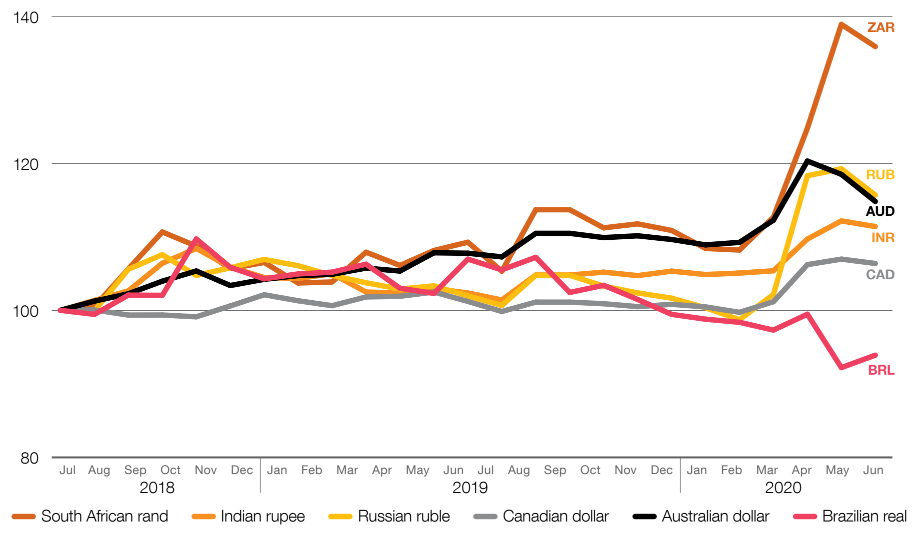
Gold continued to grow in value as a result of an uncertain global economic climate.

Figure 22: Commodities at rand-indexed prices



Source: World Bank, PwC analysis

Figure 23: Currencies indexed against the US dollar



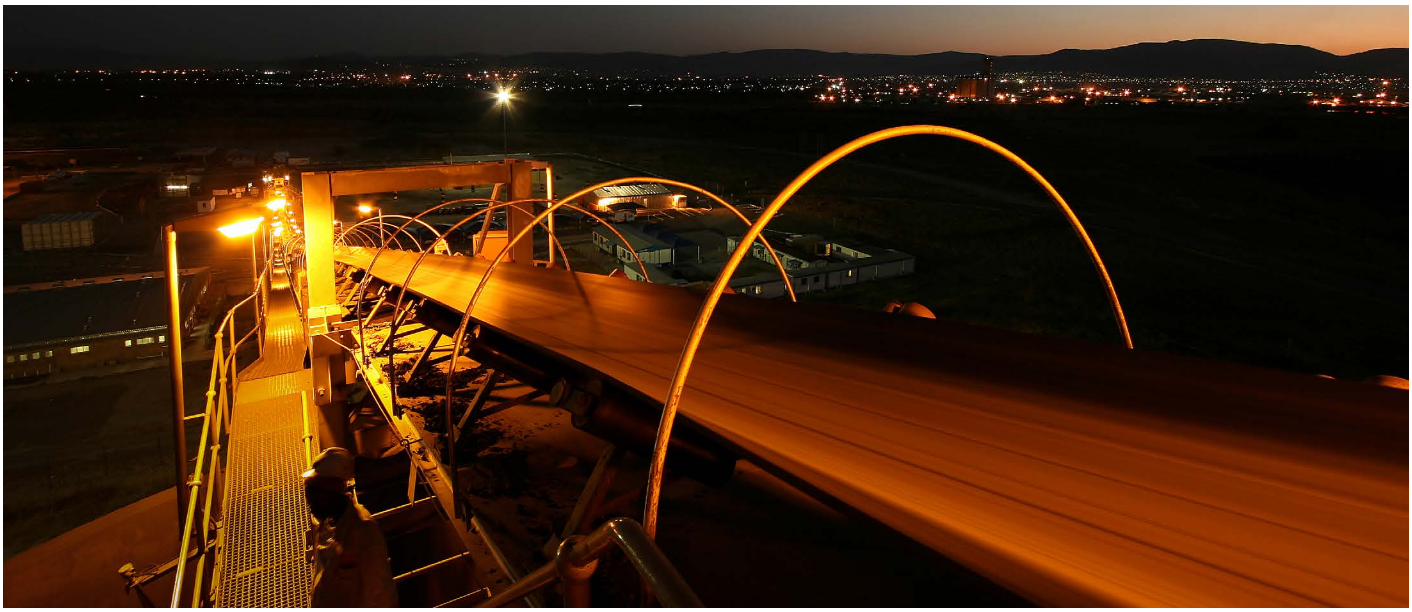
Source: IRESS, PwC analysis

The rand has more or less moved in line with the currencies of other resource-rich countries since June 2018. However, its performance has decreased significantly since March 2020 when rating agency Moody's Investors Service downgraded South Africa's credit rating below investment grade, cementing South African debt's 'junk' status in line with rating agencies Fitch and S&P Global Ratings. This poor performance was compounded by the onset of the COVID-19 pandemic and the measures taken to contain it. Despite the subsequent recovery in the rand, it is still at weaker levels supporting mining companies.

Cash flows

Cash flows	Current year Rbn	Prior year Rbn	Difference Rbn	% change
Cash flows related to operating activities				
Cash generated from operations after working capital changes	**181**	**123**	**58**	**47%**
Other	1	(7)	8	(114%)
Income taxes paid	(29)	(15)	(14)	93%
Net operating cash flows	**153**	**101**	**52**	**51%**
Purchases of property, plant and equipment	(66)	(64)	(2)	3%
Free cash flow	**87**	**37**	**50**	**139%**
Cash flows related to other investing activities				
Purchase of investments	(14)	(7)	(7)	100%
Sale of investments	2	3	(1)	(33%)
Other	8	10	(2)	(20%)
Net other investing cash flows	**(4)**	**6**	**(10)**	**(167%)**
Cash flows related to financing activities				
Proceeds from ordinary shares issues	9	3	6	200%
Proceeds from interest-bearing liabilities	75	72	3	4%
Repayment of interest bearing liabilities	(58)	(76)	18	(24%)
Distribution to shareholders	(49)	(21)	(28)	133%
Other	(14)	(4)	(10)	250%
Net financing cash flows	**(37)**	**(26)**	**(11)**	**42%**
Net increase/(decrease) in cash and cash equivalents	**46**	**17**	**29**	**171%**

Source: PwC analysis



Free cash flows

Free cash flow is defined as cash from operating activities less purchase of property, plant and equipment. It provides an indication of a company's ability to settle debt, pay dividends and fund acquisitions.

Cash generated from operations after working capital changes increased by 47% from the previous year.The gold and PGM sectors were the largest contributors, contributing R24bn and R30bn respectively, to the increase in cash generated from operating activities. The increase is largely due to the weaker ZAR/USD exchange rate. Capital expenditure grew with a net increase of 3%. Significant capital expenditure acquisitions were incurred by Sibanye-Stillwater (40% increase), with an decreases in capital expenditure being shown by Harmony Gold (40%) and Gold Fields (30%).

Investing activities

Total cash flows from investing activities increased by 21% (including the impact of purchases of property, plant and equipment). This was mainly due to increased cash outflows from investments made in the platinum and other mining sectors. The largest investments include Impala Platinum's purchase of North American Palladium (R9.5bn) and Exxaro's Resources purchase of a 100% controlling interest of Cennergi (R1.3bn).

Financing activities

The current year saw both Sibanye-Stillwater and Harmony Gold raising financing through the issuance of shares, to either fund operations or acquisitions. Funding raised through rolling credit facilities and external loans were noted among all top ten companies.

Distribution to shareholders

Dividends are generally paid after the financial year end. In the current year we saw distribution to shareholders increase to R49bn (2019: R21bn) on the back of improved free cash flows.

Kumba Iron Ore paid a dividend of R19bn (2019: R12bn) for the 12-month period ending June 2020. This was driven by positive performance in the early part of the year and growth in the iron ore price. The current year saw DRDGold issue a R564m dividend, its largest in history, out of excess income reserves. The excess income reserves are driven by the increase in the gold price and mitigation plans to reduce the impact of COVID-19 on inventory stockpiles.

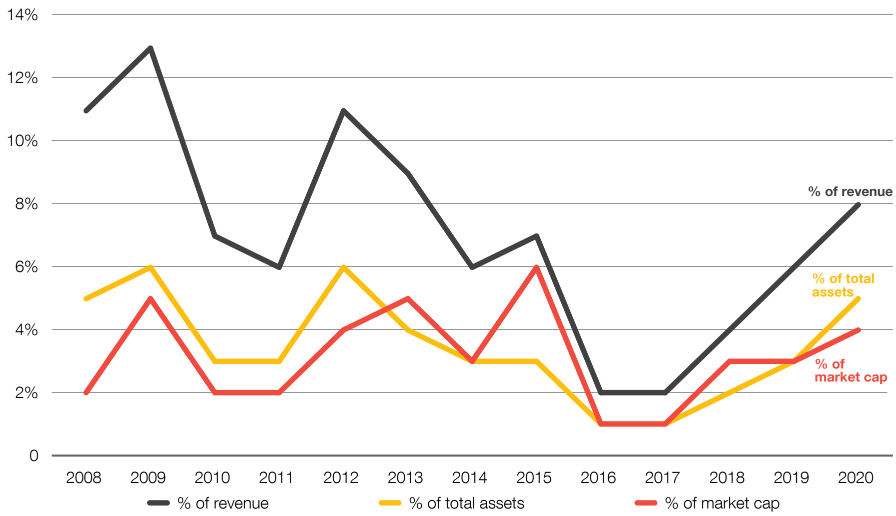
Other notable dividends include R14bn (2019: R3bn) paid by Anglo American Platinum due to a change in its dividend policy in the prior year and growth in the earnings before interest, taxes, depreciation and amortisation (EBITDA).

Exxaro Resources paid a dividend of R7.5bn (2019: R819m), nine times more than the previous year, due to dividends distributed to owners of the company.

African Rainbow Minerals increased its dividend distribution to R3.2bn (2019: R2.4bn).

The R28bn YOY increase in distributions to shareholders indicates that even during the difficult COVID-19 trading conditions and disruptions noted in production, mining companies were able to provide shareholders with increasing returns.

Figure 24: Dividend yield



Source: PwC analysis

Income statement

Income statement	Current year Rbn	Prior year Rbn	Difference Rbn	% change
Revenue from ordinary activities	594	431	163	38%
Operating expenses	(412)	(309)	(103)	33%
EBITDA	**182**	**122**	**60**	**49%**
Impairment charge	(6)	(12)	6	(50%)
Depreciation charge	(45)	(40)	(5)	13%
Profit/(loss) before interest and tax	**131**	**70**	**61**	**87%**
Net interest	(11)	(10)	(1)	10%
Tax expense	(37)	(20)	(17)	85%
Equity accounted income	10	5	5	100%
Discontinued operations	(5)	2	(7)	(350%)
Net profit	**88**	**47**	**41**	**87%**
EBITDA margin	**31%**	**28%**		
Net profit margin	**15%**	**11%**		

Source: PwC analysis

The weakening of the rand has had a positive impact on the growth of revenue with a 38% YOY increase in revenue being noted. However, should the foreign-exchange effect be removed, revenue growth in USD terms reduces to 27% YOY .

Revenue	Current year Rbn	Prior year Rbn	Difference Rbn	% change
Gold	177	131	46	35%
PGMs	307	197	110	56%
Other mining	110	103	7	7%
Total	**594**	**431**	**163**	**38%**

Source: PwC analysis

The Gold mining companies saw an increase in revenue for the current period with Gold Fields increasing revenue by 50%. This was mainly due to a 10% increase in production at the South Deep mine, coupled with the increasing gold price for the period.

AngloGold Ashanti grew revenue by R15.9bn in the period, remaining the largest contributor to the gold sector. The company was able to weather the impact of COVID-19 in South Africa, Brazil and Argentina thanks to the high production achieved in the first half of the year.

PGM producers showed the largest increase in revenue at 56%. Sibanye-Stillwater contributed by increasing PGM revenue by 137% to R81bn and Anglo American Platinum increased revenue by 33% to R111.4bn.

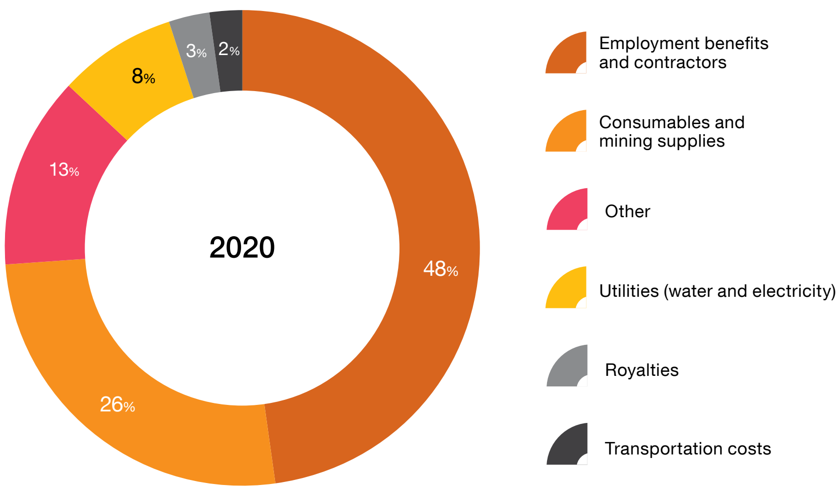
Impala Platinum grew revenue by 44% to R 69.8bn. The increase was supported by the increased rand PGM basket price and solid production performance.

Revenue for the ‘other mining’ segment increased by 7%. This is due to the aggregation of various mining resources, for instance coal, iron ore and manganese. Kumba Iron Ore remained the largest contributor in the sector with revenue of R61bn (a 1% increase from 2019), followed by Exxaro Resources contributing R 27.8bn (an 11% increase from 2019).

Operating expenses

Operating expenses increased by 33% in the current year. This was driven by increases in staff and electricity costs and the weakening of the rand, which increased the costs of imported inputs and costs for USD functional currency subsidiaries. Although a weaker rand will support revenue, it will eventually be reflected in input cost inflation.

Figure 25: Operating expense breakdown



Source: PwC analysis

Employee benefits and contractors

Employment benefits and contractors remain the largest cost driver in the sector. This is due to labour costs continuing to grow above inflation. Labour cost increased as a percentage of total cost, as most mining companies continued paying salaries to employees despite lock down production curtailment.

Royalties

The increase in revenue, commodity price increases, in conjunction with the weakening rand, resulted in a royalty taxes of R8.4bn being paid in the current year. The increase is, however, lower than the increase in revenue as a result of the large out-of-country revenues generated paid by Sibanye-Stillwater and Gold Fields.

Impairments

There was a 50% decrease in impairments the current year compared to the prior period. This reduction was as a result of the increase in commodity prices in the gold and PGM sectors. Historically, gold and PGMs have been the main contributors to the impairment line. The current year impairments amounted to R5.9bn with the main contributor being Merafe Resources impairing assets to the value of R 3.1bn.

EBITDA

The average EBITDA margin of the mining companies included in this analysis was 31%, a 3% increase from the previous period. Nine of the companies analysed have an EBITDA exceeding the average.

	Current year	Prior year	Difference
Gold	28%	26%	2%
PGM	31%	23%	8%
Other mining	36%	43%	(7%)

Tax expense

The aggregate tax expense for the mining companies was R37bn with an effective tax rate of 31%. This represents an 85% increase from the previous period driven by the increased profitability of the mining sector.

Net profit/(loss)

Net profit grew by 87% as a result of the increase in PGM and gold prices and the weakening of the rand in the current period.

Financial position

Financial position	Current year Rbn	Prior year Rbn	Difference Rbn	% change
Current assets				
Cash and cash equivalents	133	73	60	82%
Inventories	101	77	24	31%
Receivables and other current assets	68	46	22	48%
Non-current assets held for sale	3	2	1	50%
Total current assets	**305**	**198**	**107**	**54%**
Non-current assets				
Mining and production assets	494	436	58	13%
Goodwill	10	8	2	25%
Investments	90	81	9	11%
Other non-current assets	57	49	8	16%
Total non-current assets	**651**	**574**	**77**	**13%**
Total assets	**956**	**772**	**184**	**24%**
Share capital and reserves				
Share capital & reserves	427	355	72	20%
Reserves and non-controlling interest	64	52	12	23%
Total equity	**491**	**407**	**84**	**21%**
Current liabilities				
Accounts payable and other liabilities	132	96	36	38%
Interest bearing liabilities	30	18	12	67%
Total current liabilities	**162**	**114**	**48**	**42%**
Non-current liabilities				
Interest bearing liabilities	142	117	25	21%
Deferred taxation liabilities	72	60	12	20%
Derivative financial liabilities	6	4	2	50%
Other non-current liabilities	82	69	13	19%
Liabilities directly associated with assets classified as held for sale	1	1	–	0%
Total non-current liabilities	**303**	**251**	**52**	**21%**
Total liabilities	**465**	**365**	**100**	**27%**
Total equity and liabilities	**956**	**772**	**184**	**24%**

Source: PwC analysis

Key ratios

When comparing the market capitalisation to the net asset value of the mining companies analysed, there has been a significant improvement in the comparison to the prior year. This is largely due to the increase in commodity prices, production and the weakening of the rand.

Key ratios	Current year	Prior year	Global mine
Market capitalisation to net asset value (times)	2.6	2.2	
Net borrowing (R'billions)	39	62	
Gearing percentage	7%	13%	24%
Solvency ratio (times)	2.1	2.1	2.0
Current ratio (times)	1.9	1.7	1.4
Acid ratio (times)	1.3	1.1	
Net borrowings to EBITDA (times)	0.2	0.5	1.0

Source: PwC analysis

The liquidity position of the South African mining industry continues to improve and remain stronger than the global mining sector. The increase in the current ratio is driven by higher cash balances at period end, and the repayment of short-term liabilities to improve the financial position. There has also been an increase in the acid ratio as a result of the increased financial performance across the sector.

Gold

The gold sector has shown an improvement in its liquidity position, largely due to the increase in commodity prices, production levels and a significant reduction in impairments recognised due to the positive financial results throughout the sector.

Additional borrowings entered into during the period resulted in the gearing ratio remaining similar to that of the prior financial period.

PGM

There has been improvement in the liquidity position in the PGM sector. This has been driven by good financial performance as a result of improved commodity prices and the weakening of the rand. This, coupled with the 86% increase in the cash position for the sector, shows the strong balance sheet position despite the current COVID-19 pandemic.

	Gold		PGM	
	Current year	Prior year	Current year	Prior year
Net borrowing (R'billions)	55	73	4	27
Gearing percentage	23%	35%	2%	13%
Solvency ratio (times)	1.7	1.7	2.1	2.0
Current ratio (times)	1.7	1.2	2.0	1.7
Acid ratio (times)	1.2	0.7	1.1	0.9
Net borrowings to EBITDA (times)	1.1	2.2	0.04	0.6

Source: PwC analysis

Creating value by digging deep

The 2019–2020 financial period has once again highlighted the importance of the mining industry in creating value for stakeholders, developing and supporting communities and laying a stable foundation for growth in local economies. This was once again evident in the performance of the past 12 months, a significant portion of which was impacted by COVID-19.

Throughout the world, as well as in South Africa, mines have been permitted to carry on activities to a large degree during the national lockdown, emphasising the importance of the industry to local and global economies.

Starting before the pandemic, mines globally have been increasing their investment in capital expenditure and have continued to reward shareholders for their patience during leaner years.

Among miners included in this analysis, capital expenditure's contribution to total value decreased by 10% YOY. This was driven by the focus shifting from asset investment to rewarding shareholders for their patience. Mining companies continued to increase their returns to shareholders, which in most cases includes employees, with significant increases in shareholder distributions noted. The contribution of distributions to the total value distributed increased by 8% YOY.

The pandemic hit the majority of mines in the 2020 financial year, resulting in reduced operations, lower working hours and weaker returns to non-essential services materials. They were also hampered by export and import restrictions and challenges with the delivery and shipping of materials.

As a result of the pandemic, mines were requested to invest even more in their local communities and support structures. To date, mining companies have invested more than R250m in COVID-19 related measures and have donated handsomely to the Solidarity Funds of their local economies.

Value distribution to governments has increased in the current period. This was expected as increased profitability from improved margins resulting in higher taxable income levels and therefore larger distribution to governments in the form of taxes.

The investment in communities has remained a smaller recipient of the value distributed by mines according to reported results, but this is likely not a completely fair reflection of the actual value mines create in their communities and local economies.

Value added	2020	2019
Employees	38%	48%
Employee taxes	6%	4%
Direct taxes	10%	8%
Mining royalties	3%	3%
Capital expenditure	24%	33%
Return to providers of debt funding	2%	2%
Distribution to shareholders	18%	10%
Community investment	3%	1%
Funds retained	(3%)	(10%)

Source: PwC analysis

Ten-year summary

The information included below differs from that in the rest of our analysis as it includes the aggregated results of those top companies as reported on in each respective edition of *SA Mine*.

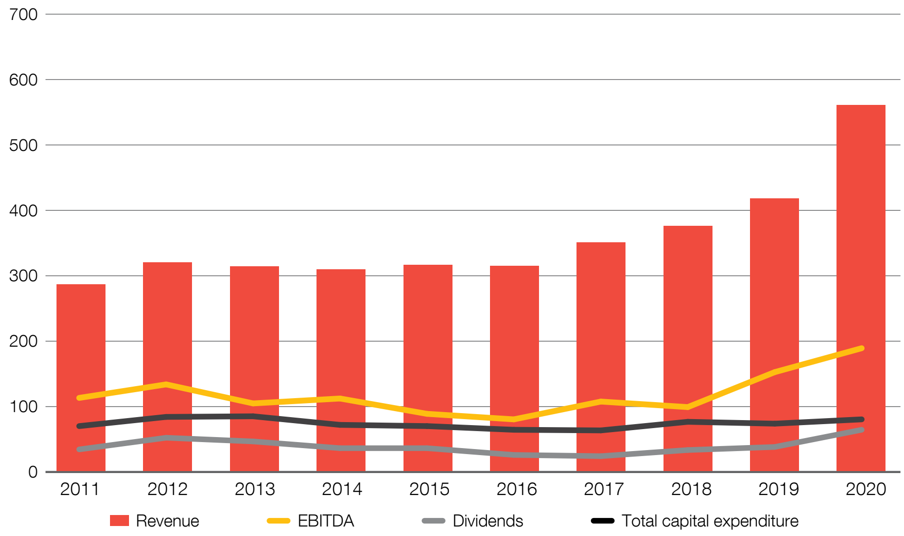
Ten-year summary of financial information (Rbn)

Rbn	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Market capitalisation	**1 280**	**884**	**482**	**420**	**560**	**414**	**675**	**597**	**833**	**929**
Aggregated income statement										
Revenue	594	443	398	371	333	335	327	332	339	303
EBITDA	182	111	86	95	66	75	100	92	123	101
Impairment charges	(6)	(22)	(46)	(22)	(60)	(24)	(49)	(25)	(2)	(5)
Net finance costs	(11)	(11)	(11)	(10)	(10)	(7)	(6)	-	(3)	(4)
Income tax expense	(37)	(15)	(9)	(11)	(2)	(8)	(8)	(16)	(29)	(22)
Net profit/ (loss)	88	32	(11)	17	(46)	2	5	25	65	55
EBITDA Margin	31%	25%	22%	26%	20%	22%	31%	28%	36%	33%
Aggregated cash flow statement										
Cash flow from operating activities	153	100	79	83	69	62	69	69	112	62
Total capital expenditure	66	68	62	48	49	55	57	71	70	55
Free cash flow	87	32	17	35	20	7	13	1	42	7
Other investing cash flows	(4)	4	(20)	(8)	4	3	(5)	(10)	(8)	(9)
Dividends paid	(49)	(27)	(16)	(6)	(8)	(19)	(19)	(30)	(36)	(17)
Other financing cash flows	(14)	(6)	27	(8)	-7	11	3	34	9	21
Aggregated balance sheet										
Cash	133	70	65	58	46	38	33	45	46	43
Property, plant and equipment	494	430	406	403	414	425	422	449	411	380
Total assets	**956**	**780**	**717**	**692**	**709**	**724**	**694**	**714**	**650**	**595**
Total liabilities	**465**	**360**	**325**	**296**	**311**	**293**	**270**	**296**	**237**	**217**
Total equity	**491**	**420**	**392**	**395**	**398**	**431**	**424**	**396**	**413**	**378**

Source: PwC analysis

The trend of increasing revenue, which began in 2017, has continued throughout 2020 with 16 of the 25 companies analysed showing an increase in revenue for the current financial year. This was attributable to increased production and increases in commodity prices. Cost discipline also allowed margins to grow. Unfortunately, above-inflationary cost increases, impact of COVID-19, and the weaker rand/US dollar exchange rate is likely to contribute to higher input costs and erode margins in the coming year.

Figure 26: Ten-year historical financial information (Rbn)



Source: PwC analysis

About this publication

Basis for compiling this report

We aggregated the financial results of mining companies with a primary listing on the JSE and mining companies whose main operations are in Africa and that have secondary listings on the JSE, for the financial year ends to June 2020. We used a cut-off market capitalisation of R200 million and excluded all companies with suspended listings.

Our selection criteria excluded global mining companies Anglo American plc, BHP, South32 and Glencore plc. Although these companies have a significant South African footprint, their global exposure and size mean that they do not necessarily reflect trends in the South African mining environment. While a large number of the entities included also have international exposure, the bulk of their operations are in Africa.

The results aggregated in this report have been sourced from information that is publicly available and consists primarily of annual reports or reviewed results made available to shareholders.

Companies depicted in the publication have different year ends and report under different accounting regimes. Information has been aggregated for the individual companies and no adjustments have been made to consider the different reporting requirements. In a change from prior years, as far as possible, we have aligned the financial results of reporters to be as at, and for, the year ended 30 June 2020. For companies which do not have June year ends, we added and deducted reviewed results to reflect the comparable 12-month period.

All currency figures in this publication are reported in South African rand, except where specifically stated otherwise. The results of companies that report in currencies other than the rand have been translated at the average rand exchange rate for the financial year, with balance sheet items translated at the closing rand exchange rate.

Some diversified companies undertake part of their activities outside the mining industry. No attempt has been made to exclude such non-mining activities from the aggregated financial information.

Companies analysed

	Company name	Year end
1	African Rainbow Minerals Limited	30 June 2020
2	Afrimat Limited	28 February 2020
3	Alphamin Resources Corporation	31 December 2019
4	Anglo American Platinum Limited	31 December 2019
5	AngloGold Ashanti Limited	31 December 2019
6	Buffalo Coal Corp.	31 December 2019
7	Chrometco Limited	28 February 2020
8	DRDGOLD Limited	30 June 2020
9	Exxaro Resources Limited	31 December 2019
10	Gemfields Limited	31 December 2019
11	Gold Fields Limited	31 December 2019
12	Harmony Gold Mining Company	30 June 2020
13	Impala Platinum Holdings Limited	30 June 2020
14	Kore Potash Plc	31 December 2019
15	Kumba Iron Ore Limited	31 December 2019
16	MC Mining Limited	30 June 2020
17	Merafe Resources Limited	31 December 2019
18	Northam Platinum Limited	30 June 2020
19	Orion Minerals Limited	30 June 2020
20	Pan African Resources Plc	30 June 2020
21	Royal Bafokeng Platinum Limited	31 December 2019
22	Sibanye-Stillwater Limited	31 December 2019
23	Tharisa plc	30 September 2019
24	Wescoal Holdings	31 March 2020
25	Wesizwe Platinum Limited	31 December 2019

The following companies showed a market capitalisation exceeding R200m but their results were released too late for inclusion in this publication:

1	Jubilee Metals Group plc	30 June 2020
2	Resource Generation Limited	30 June 2020

Glossary

Terms	Definition
acid ratio	(current assets less inventory)/current liabilities
ALSI	All Share Index
BBBEE	Broad Based Black Economic Empowerment
CDP	Carbon Disclosure Project
COVID-19	Coronavirus disease 2019
current ratio	Current assets/current liabilities
EBITDA	Earnings before interest, tax, depreciation, amortisation and impairments
EBITDA margin	EBITDA/revenue
ESG	Environmental, Social and Governance
EIA	Economic Impact Assessment
FCEV	Fuel Cell Electric Vehicles
gearing percentage	Net borrowings/(net borrowings plus equity)
GDP	Gross domestic product
GHG	Greenhouse gas
GVA	Gross value added
JSE Limited	Johannesburg Stock Exchange
market capitalisation	The market value of the company calculated as the number of shares outstanding, multiplied by the share price
M&A	Mergers and Acquisitions
net asset value	Total assets less total liabilities
net borrowings	Interest-bearing debt, less cash
net profit margin	Net profit/revenue
PGMs	Platinum group metals
SARS	South African Revenue Service
StatsSA	Statistics South Africa
solvency ratio	Total assets/total liabilities
TCFD	Task force on Climate related Financial Disclosures
working capital	Inventories plus accounts receivable less accounts payable

Contacts

With mining experts working in each key mining area across South Africa, our teams are helping clients deliver on specific projects and organisational growth aspirations. We offer advisory, tax and audit services to global corporations and locally-listed companies.

We complement this with:

- A suite of niche mining consulting capabilities focused on optimising value across mining operations and effectively managing risk; and
- A comprehensive client feedback programme to ensure we are consistently delivering on individual client needs.

Jock O'Callaghan
Global Mining Leader
Melbourne, Australia
T: +61 (3) 8603 6137
E: jock.ocallaghan@pwc.com

Andries Rossouw
Africa Energy, Utilities and Resources Leader
Johannesburg, South Africa
T: +27 (0) 11 797 4060
E: andries.rossouw@pwc.com

Luyanda Mngadi
Mining Assurance Partner and Project Leader
Johannesburg, South Africa
T: +27 (0) 11 287 0661
E: luyanda.mngadi@pwc.com

Wayne Jansen
Energy, Utilities & Resources South Market Consulting Leader
T: +27 (0) 11 059 7209
E: wayne.jansen@pwc.com

Laetitia Le Roux
Energy, Utilities & Resources South Market Tax Leader
T: +27 (0) 11 797 5429
E: laetitia.le.roux@pwc.com

George Arhin
West Market Mining Industry Leader – Ghana
T: +233 30 274 2607
E: george.arhin@pwc.com

Emmanuel le Bras
Francophone Africa Energy & Mining Industry Leader - Republic of the Congo
T: +242 05 534 09 07
E: emmanuel.lebras@pwc.com

David Tarimo
Energy, Utilities & Resources Partner – Tanzania
T: +255 22 219 2600
E: david.tarimo@pwc.com

For any mining related queries, services or assistance required, please contact our EU&R Centre of Excellence at liesl.opperman@pwc.com.

Contributors

Liesl Opperman
Sayuri Ramawtar
Alexander Glas
Christie Viljoen
Ebrahim Beg
Greg Smith
Jayne Mammatt
Jeaunes Viljoen
Jonathan Metcalfe
Kyle Drury
Kyle Mandy
Laetitia Le Roux
Lambertus Schrap
Le Riche Burger
Lullu Krugel
Matthew Muller
Melissa Lubbe
Nardus Rudolph
Nonhlanhla Sibiya
Pieter Theron
Rheinhardt Schulze
Salome Ntsibande
Sheivaan Naidoo
Sidney O'Reilly
Stephan Gerber
Stephen Boakye
Theodora Lamula
Victor Orban
Wernu Bekker
Wihann Kotze

Notes

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