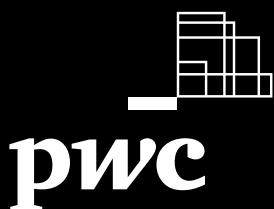


SA Mine 2019

In Transition



September 2019

11th edition

www.pwc.co.za/mining

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Executive summary

It may be the foundation upon which the economic and industrial revolution carried South Africa onto the world stage, but the South African mining industry requires a revitalisation to regain its lustre.

This is the 11th edition of our annual publication highlighting trends in the South African mining industry, as represented by the top 26 mining companies by market capitalisation.

Mining companies have begun to enjoy some welcome relief in 2019, as gains in commodity prices, aided by a weaker rand, began to bring the industry back into profitability, despite increased costs and weak production. Free cash flows doubled and EBITDA and dividends are at five-year highs. Shareholders can be cautiously optimistic with the mining sector outperforming the JSE All Share Index over the last two years, as it recovers from an extreme low base.

Despite the impressive financial recovery, the R22 billion in impairment provision, down half from the 2018 level, highlights the high cost base of our deep level mines. Not even the significant rand gold price increase could save gold's terminal production decline, which was compounded by shaft closures and industrial action. In the absence of new technology, halting this decline seems unlikely.

The SA mining industry is in transition from a deep level, labour intensive, conventional mining environment to a mechanised shallower, technologically advanced industry. Over the last 15 years, overall mining production has declined marginally, as declining deep level gold production is offset by increased bulk and base metal commodity production.

PGM producers saw an impressive recovery on the back of an improved basket price, but also as a result of previous cost restructuring and a strategic refocus of operations to survive in the low price environment.

While capital expenditure increased, no substantial capital expenditure has been made in large-scale new projects. Mining companies are taking a disciplined approach when considering their capital allocation. As large-scale investments require long-term payback periods, long-term stability is required. While more certainty was brought about by the finalisation of the Mining Charter in 2018, more needs to be done in terms of dialogue. The implementation of the Carbon Tax Act and additional environmental regulations adds significantly to the cost base and implementation uncertainty in the industry.

Mining remains an important sector in the South African economy, and one with the resources to grow. A changing world requires strong leadership from the industry. There is clearly a need to transition to a low carbon, high technology, consumer and community-focused mining industry that will restore trust and lead the industry to a sustainable future.

Andries Rossouw
PwC Africa Energy Utilities &
Resources Leader

Luyanda Mngadi
Mining Assurance Partner
SA Mine 2019 Project Leader

Financial performance



Revenue: Up R46bn (12%)

**Dividends paid to shareholders:
Increased R11bn (69%)**

**Impairments: Down by half,
but still R22 billion**

**Operating costs: Up 8% due to
higher-than-inflation cost increases**

**Market capitalisation: Increased in
the current year to R884bn (up 84%),
mainly attributable to companies
within PGM and gold sector**

Human factor



**Continued commitment to
safety resulting in declining
fatalities and lost -time injury
frequency rate**

**Board diversity remains
a priority**

Social and environmental impact



**The Carbon Tax Act has been
implemented and became
effective on 1 June 2019**

**Companies embracing the need
to reduce their carbon footprint**

Global economy, local impact

Global economy

The global economy experienced a challenging growth environment over the past two years. The World Bank estimates that global economic growth slowed marginally from 3.1% in 2017 to 3.0% in 2018. Activity in the manufacturing and trade sectors lost steam in 2018 and continued to do so in 2019, with trade-related political tensions between some of the world's largest economies remaining elevated.

These factors weighed on investor sentiment in global financial markets, resulting in declines in global equity prices. The World Bank predicted global trade growth of just 2.6% in 2019 – the slowest since the global financial crisis – and for global economic growth to also dip to 2.6% during the year. Slower growth invariably results in pressure on mining commodity prices.

Prices of metals came under pressure in 2018 as a result of the negative impact on growth created by trade tensions. The prices of industrial commodities increased during the first half of 2019 due to supply constraints and production cuts. Iron ore prices, for example, increased notably at the start of the year because of the (temporary) mine closures following the Vale mining disaster in Brazil as well as weather-related disruptions in Australia. Nonetheless, the World Bank expects metal prices to decline slightly during the year due to a weaker outlook for global metals demand.

South African economy

The South African economy has recently experienced its most challenging period of growth since the dawn of democracy. Real economic growth averaged just 0.8% during 2018, which was again below the population growth rate. The first quarter of 2019 experienced a 3.2% quarter-on-quarter contraction in economic activity, with the return of Eskom load shedding playing a big role in this. The second quarter came with some better news: a 3.1% quarter-on-quarter improvement in economic activity saved the country from falling into a technical recession. The mining sector was a key contributor to this recovery.

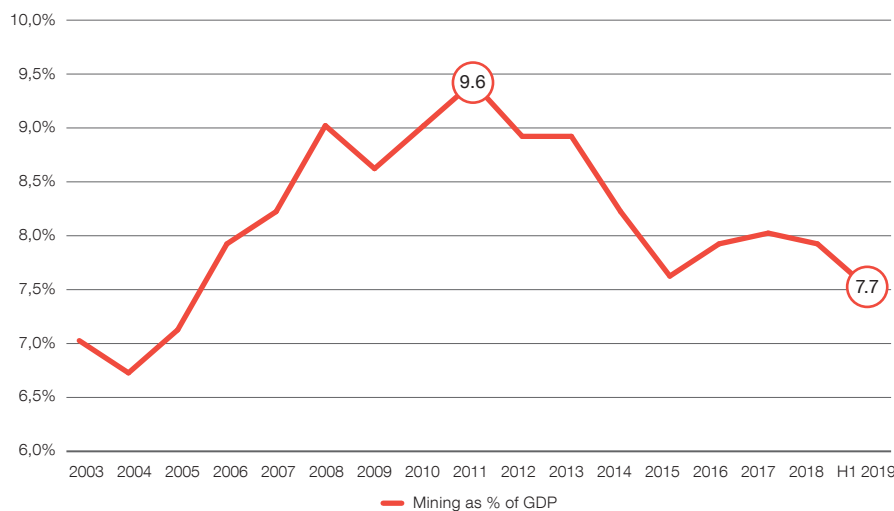
Nonetheless, the mineral sector broadly weighed on South Africa's struggling economy in recent quarters. Real activity in mining contracted by 3.3% in the year ending June 2019. The volume of mining production during the second quarter of 2019 was around 2.3% smaller compared to a year earlier. The decline was largely attributed to a slump in gold production: output of the yellow metal was 13.7% lower during the April–June 2019 period compared to a year earlier. This was associated with prolonged strike action at the operations of Sibanye-Stillwater.

While mining contributed 9.6% to the country's GDP in 2011, this declined to 8.1% in 2018 and dropped below 8% in 2019. It is unlikely that mining will again reach the levels seen in 2011 as the South African economy needs to grow on a diversified basis.

Mining is still
a key player in
our diversified
economy



Figure 1: Mining GDP as percentage of total GDP, 2003–H1 2019



Source: Stats SA, PwC analysis

Industry in transition

South Africa is not isolated from global challenges and opportunities and investors often looked to South Africa as a commodity or macroeconomic hedge by benefitting from a weaker rand – with most producers recognising dollar-based revenues against rand-based costs.

Investor sentiment and global attractiveness has eroded rapidly over the last five years. The appointment of a new minister for Mineral Resources and Energy and the finalisation of the Mining Charter 3 in September 2018 has allowed producers and investors to become cautiously optimistic.

Nevertheless, challenges impacting the local sector remain including, regulatory uncertainty, rising input costs, capacity constraints at Eskom and transport infrastructure, labour disputes, shortage of skills, illegal mining, declining resource grades and access to the remaining resources. Responding to these challenges will determine the future of the oft-proclaimed sunset industry.

The South African mining industry is in transition from a deep level, labour intensive, conventional mining environment to a mechanised shallower, technologically advanced industry. Over the last 15 years, overall mining production has declined marginally as the declining deep level gold production is offset by increased bulk and base metal commodity production.

Returning to long term growth will only be possible with investment in innovative technology to make deep level resources viable again.



Relative sector performance

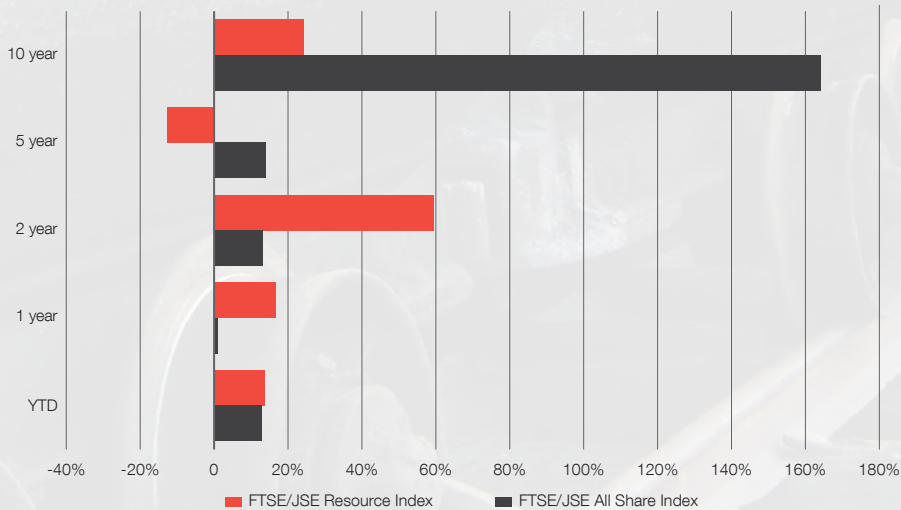
The JSE Mining index outperformed the JSE All-Share Index over the last two years as precious metal miners recovered from low levels. Despite the sector's outperformance, miners haven't clawed back their underperformance since 2012.

Figure 2: JSE Mining vs JSE All Share Index, 2003–2019



Source: IRESS, PwC analysis

Figure 3: Relative sector total shareholder return performance, 2009–2019



Source: Capital IQ, PwC analysis

Climate change: Not just all hot air

In addition to strategies regarding the impact of mining companies' operations on the environment, climate changes are forcing mining companies to consider a range of climate factors that impact on their operations:

- Increased frequency of extreme weather events, such as flash floods, see increased operating costs in repairing damage to infrastructure, shutdowns and insurance costs;
- Long-term changes to the local climate impacting the availability and predictability of day-to-day inputs required for mining (water, transport routes);
- Changing consumer demand impacting a mine's social licence to operate;
- Limitations on funding for new carbon-intense projects;
- Direct regulations requiring expenditure to control and monitor emissions and penalties where these are exceeded;
- Additional input cost on the likes of electricity as carbon tax and other emission costs are passed on to consumers; and
- Socio-economic impact on communities around mines.

However, changing climates also bring about opportunities for mining companies that are agile in adoption of new strategies.

Threats to mining inputs

Mines are physically challenged by their geography in that they cannot simply relocate their operations. This means they are dependent on highly sensitive climate inputs and processes. Mines are often located in climate sensitive regions and changes to climate can have significant effects on their business.

Water is critical for mining (e.g. for cooling, crushing, grinding, milling ore, slurry transport and tailings storage). According to Barrick Gold Corporation, the largest gold producer in the world, it has a 5% chance of losing nearly USD1 billion in production value every year across its operations because of droughts. Increased climate variability could therefore lead to losses.

Research by the Council for Scientific and Industrial Research (CSIR) shows that change in the global climate is affecting the way local mines need to plan and build their water management and other infrastructure. These studies suggest climate change will make the eastern regions of South Africa significantly wetter, and the western regions drier. In the eastern areas of the country, this means mines will experience increased rainfall, which could overwhelm current water management infrastructure. The inverse is true for the western parts of South Africa,

where dryer conditions are expected.

Warming temperatures will place employee health and safety at risk through increases in communicable diseases, exposure to heat-related illnesses and the likelihood of accidents. These temperature increases are likely to be felt hardest in the Limpopo, North West and Northern Cape provinces.

Some mining companies have already started anticipating and adapting to these physical risks to their operations. During 2018, Gold Fields spent USD32 million on water management practices, including pollution prevention, recycling and conservation initiatives. 66% of their total water use was recycled or reused. This has also led to a reduction in water costs. Their Ghanaian operations are piloting a climate-data viewer tool that was launched by the International Council on Mining and Metals (ICCM). This tool enables companies to undertake climate change vulnerability risk assessments. It provides insight into changes in precipitation, temperature, wind and water stress levels. The information derived from this tool has been used in developing adaptation plans to mitigate the risks identified.

Opportunities in technology

There are substantial opportunities for companies that embrace new technologies within their existing business models. Although investment in new technologies requires capital expenditure, renewable energy to power mining operations is increasingly being recognised as viable technology. This reduces emissions and could lead to financial benefit as the cost of renewables is rapidly decreasing.

Anglo American Group is looking at radically reducing energy consumption through FutureSmart Mining™ methods. These methods will focus on precision mining with minimal energy, water and capital intensity, re-dressing environmental legacies to recover low-grade mineral concentrates, transformational use of renewables and the elimination of wet tailings.

In 2018, a total of 440 energy efficiency and business improvement projects at Anglo American Group operations saved more than 6.0 million GJ in energy consumption. Greenhouse gas (GHG) emissions savings of 6.1 million tonnes CO₂ equivalent were experienced.

A range of emission reduction initiatives across the Kumba Iron Ore haulage fleet saw an energy cost saving of approximately R36.05 million and the Company's tax allowance claim exceeded R75 million.

Carbon policy and legislation

A major financial risk to mining globally is the enforcement of carbon and GHG emission taxes or levies. The local market has seen the realisation of this through the introduction of the Carbon Tax Act (DEA, 2019). This now sees companies being taxed on their total GHG emissions above a certain threshold. This has a direct impact on mining companies. However, future indirect impacts may be felt through increases in the cost of electricity if Eskom is not exempt from Phase 2. This could result in the closure of already marginal mines.

The South African Carbon Tax Act, however, makes provisions for incentives where carbon offsets can be utilised. This could lead to 5%–10% decrease in emissions. Carbon offsets will create an estimated market of between 10 and 20 million tons of CO₂ per year, while providing investment for real mitigation projects throughout South Africa. It is hoped that it will create jobs and decrease emissions.



Increased environmental risks are making project finance more difficult to secure.



Markets are going green

Climate change is now fundamentally affecting the way businesses of the future will operate. It is also driving a change in consumer behaviours. Locally, the National Development Plan has focused the country on transitioning to a low carbon economy as part of meeting our commitment to limit emissions.

Changing market trends are also prevalent in the lending and project finance environment. Increased environmental risks are making project finance more difficult to secure. Beginning in 2018 Nedbank, FirstRand and Standard Bank announced that they will no longer be financing the Thabametsi's coal-fired power plant. This was in line with a change in their respective internal resolutions around the financing of new coal projects. Standard Bank further stated that the financing of future coal projects would need to meet a set of strict criteria.

In August 2019, Exxaro Resources announced that it has started seeing higher insurance premiums in the renewal of insurance policies due to investor concerns around climate change. Exxaro Resources further stated that while it believes coal is a relevant source of affordable electricity generation for the economy and that it is well positioned to supply this energy source to Eskom, it was identified as a medium- to longer-term risk. This has led Exxaro Resources to explore expansion of current projects it is running, such as investments in renewables and a plan to transform its closed mines into 'agricultural hubs' to benefit wider society.

Major diversified miners such as Anglo American Group, BHP and Rio Tinto have stated that they are not considering thermal coal as part of their long-term strategies.

Reputation is mining's social licence to operate

Mining remains a vital part of the global economy and is not an industry that is going to disappear any time soon. Mining companies often operate in some of the most politically and socially challenging parts of the world, where the industry remains an important driver of economic growth. In many cases it results in mining companies and the local communities competing for the same resources such as water and energy. Threats to the sector's profitability and viability, such as climate change, may have significant consequences for development in host countries. The extent to which mining avoids undermining host communities' resilience to climate change will directly impact the industry's reputation, social licence to operate, and access to project finance.

Mining companies need to work closely with their communities and stakeholders to clearly demonstrate the direct, indirect and induced value they create from their operations as this is not always understood by host communities.

The way forward

Successful mining companies of the future will need to consider the viability of the minerals they mine, their mining and processing technologies, and the energy sources for their operations. They will also need to take a two-pronged approach to climate change to ensure their businesses remain resilient and relevant. The first is the need to reduce the current carbon-intense areas of their business to reduce their overall GHG contributions. The second is the need for climate change adaption to the impacts of climate change that are already manifesting. The impacts of climate change could have both positive and negative consequences for operations and these impacts will differ based on the geographic location, mineral, mining method and other factors.

Carbon Tax: Extracting the impact

Legislation

The Carbon Tax Act, which became effective on 1 June 2019 levies a carbon tax rate of R120 per tonne of carbon dioxide equivalent (tCO_{2e}). Tax-free allowances are available to reduce the carbon tax liability. Taking into account the allowances, the effective tax rate ranges between R6 and R48/tCO_{2e}.

Carbon tax will be levied in respect of the sum of the direct GHG (also known as Scope 1 GHG) emissions of a taxpayer in respect of a tax period expressed as the CO_{2e} of those GHG emissions resulting from fuel combustion, industrial processes and fugitive emissions.

The Regulations provide that companies that conduct so-called 'listed activities' above the specified threshold, are required to report Scope 1 GHG emissions to the Department of Environment, Fisheries and Forestry (DEFF), which will form the tax base for carbon tax purposes.

Further impending legislation that may cause some uncertainty for taxpayers is:

- The Draft Carbon Offset Regulations – claiming the carbon offset tax-free allowance, limited to 10%; and
- Sections 10 and 11 of Carbon Tax Act – regulations underlying the trade exposure and performance benchmark tax-free allowances.

Fuel combustion activities for 'mining and quarrying' and fugitive emission activities for 'coal mining and handling' and 'underground and surface mines' are listed as qualifying emission activities.

Budget system

Under Section 12 of the Carbon Tax Act, companies can voluntarily participate in the DEFF's current carbon budget system, which allows for a 5% tax-free allowance. To qualify for this deduction, confirmation is required from the DEFF confirming the taxpayers' participation. However, no rules, regulations or guidelines for preparation of a carbon budget are currently in place, and thus claims are currently prepared and approved in consultation with the emitting entity and the DEFF.

To ensure alignment between the carbon tax and carbon budget system, it is proposed that with the implementation of Phase 2 of Carbon Tax Act, GHG emissions exceeding a specified emitter's carbon budget will be taxed at a higher rate with no tax-free allowances. It is understood that this rate will be as high as R600/tCO_{2e}.

Phase 1

Phase 1 of implementation of the carbon tax runs from 1 June 2019 to 31 December 2022 (referred to as the transitional phase) and affords taxpayers time and flexibility to make the necessary changes required to become less carbon intensive.

Any adjustments to the Carbon Tax Act beyond the first phase will depend on the GHG emissions efficiency achieved and the state of the South African economy. National Treasury has announced that Phase 1 is aimed to ensure emitters are given time to transition their operations to cleaner technologies through "investment in energy efficiency, renewables and other low carbon measures".



Uncertainties around Phase 2

In light of the uncertainties surrounding the implementation of the second phase of carbon tax, it is recommended that mining companies incorporate the level of uncertainty into their life-of-mine calculations as well as impairment models. The implications could be profound. For instance, Eskom estimates that its potential carbon-tax liability in Phase 2 of carbon tax implementation would amount to R11.5 billion. Similarly, Harmony Gold recently reported an impairment of R3.9 billion as a result of increased costs, which was further compounded by the inclusion of carbon tax.

It should be highlighted that National Treasury aims to use Phase 1 as the trial phase of carbon tax implementation and aims to roll-out Phase 2 vigilantly with the aim of ensuring the industry is not crippled. Many uncertainties still exist regarding the severity and nature of Phase 2 roll-out. Taking a conservative approach, with too many uncertain variables, may result in deterring investment and stifle growth based on an overstated carbon tax exposure.

Despite the potential impact carbon tax could have on the South African industry, economic development and global competitiveness, there still remains an undeniable need to contribute towards a low-emission and climate resilient society and economy. In order for South Africa to meet its objectives under the Paris Agreement, a delicate balance must be struck between the enforcement of industry-wide carbon reduction and maintaining socio-economic development.

Great circumspection is required to ensure that regulation of air quality does not prove to be too utopian and does not have sufficient regard for the economic development needs of the country, its citizens and industries.



Technology and the human factor



The mining industry we see today is at an existential crossroads. Funding is significantly complicated by the need to maintain a social licence to operate and by safety, health and environment requirements. At the same time, the rate of technological change and changing consumer behaviour have emerged as major concerns for the industry.

The rate of technological change

Dramatic increases in input costs to the industry have led to an emphasis on unit cost cutting through the use of new technologies including process automation.

The mining industry is growing more dependent on a variety of mature and cutting-edge information technologies to manage risk, run more efficient operations, obtain incremental performance improvement over time, provide surety to tax authorities and shareholders, demonstrate to communities that they are delivering on commitments, improving the quality and retention of learning, eliminate fatalities and connect with suppliers and employees.

It is a challenge to stay competitive, and to succeed. Digitisation is a fundamental part of the new business model, encompassing and affecting all areas of business: supply chains and operations, marketing and sales, and interactions with current and potential customers.

Changing consumer behaviour

Changing consumer behaviour presents an even larger risk to the future of mining. Consumers associate the product with their societal and environmental impact and have the platforms to gain publicity through social media. With a history of poor reclamation and environmental remediation, miners are at risk of the opinion that the community has of the industry affecting their ability to function, including the potential to deny mining industries – such as coal – access to funding.

This change in the mindset of consumers and their access to public platforms has changed the debate and brought the concept of ‘social licence to operate’ to the fore. The onus is now on mining companies to use technology to reach out and demonstrate that they have fulfilled their obligations in terms of their feeder communities.

Leadership in the digital world

With a long and growing list of industries and products that have been disrupted by new technologies, it is clear that all these issues require the right leadership to succeed.

Changing and adapting to the realities of an interconnected world is the challenge. For change to take place, it must be driven from the top. If change is driven from the top without a strong technology visionary – a visionary that can combine technologies in new and exciting ways to fulfil objectives – then IT will keep doing what it always has and will potentially be relegated to the back office permanently.

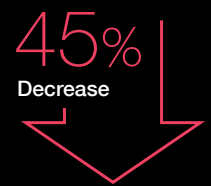
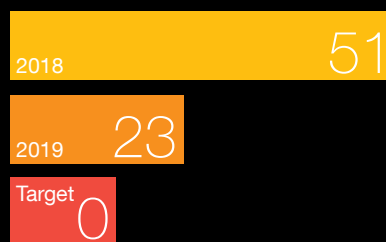
The Chief technology officer is not always at the top table and does not always have sight of the strategy and the business value drivers, but it is evident that unless they do – the organisation is at risk.

The new Chief technology officer, as a technology leader, has a different set of skills. They are integrators of people and ideas, people that strive for measurable improvements now and more in the future. They are leaders that have the ability to manage without ego – because the role is to enable the success of others. They are leaders with conscience – allowing them to thrive in an era of transparency.

People first

Mine fatalities

There was a notable decline in fatalities reported by the companies that disclosed safety statistics. This, coupled with a 25% reduction in the lost-time injury frequency rate among these companies demonstrates that their commitment has translated into tangible results.

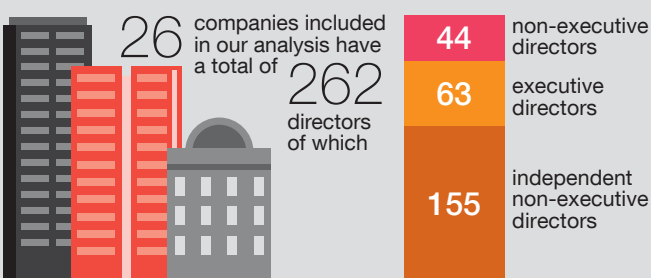


Board diversity

The focus on having the right mix of gender, race, skills and age represented at board level has become a priority for companies around the world. Given the history of the industry and the country as a whole, the South African mining industry is subject to particular scrutiny.

For the companies included in our analysis, we have summarised the board of directors' tertiary qualifications underpinning their technical skills. Although tertiary qualifications are by no means the only indication of ability and experience which have been built up over many years and through many formal and informal training opportunities, they provide an indication of the core skill base in the board room.

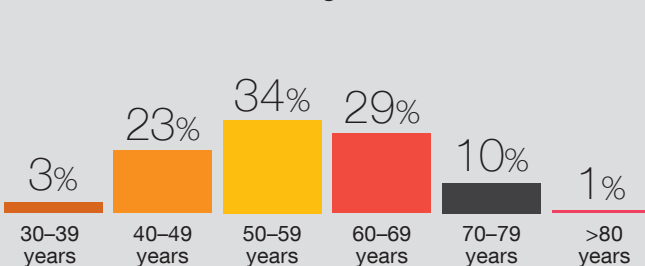
Board composition



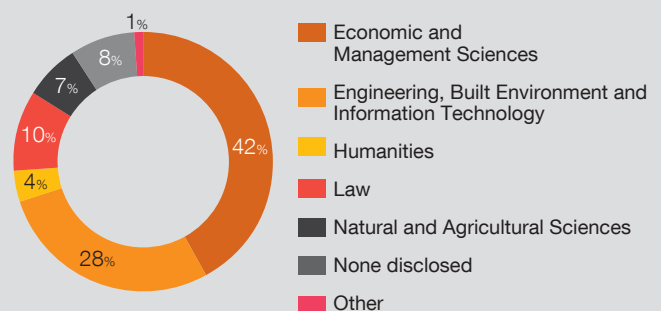
Board composition



Age



Skills base



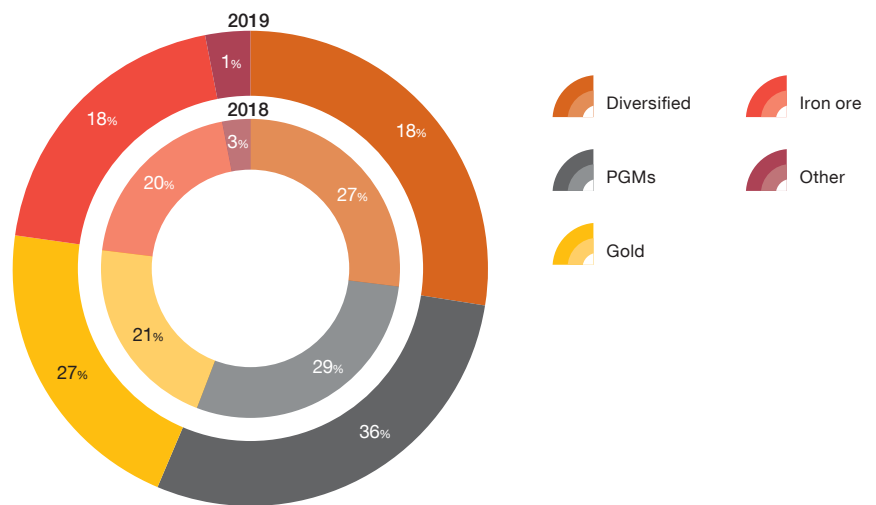
Financial performance and cash flow

Market capitalisation

Total market capitalisation increased in the current year to R884 billion. This is well above the market capitalisation of the prior year which was R482 billion and is mainly attributable to the increase in market capitalisation of companies within the platinum group metals (PGMs) and gold sectors.

The exposure of the South African mining industry to precious metals is probably best explained by the split in market capitalisation of the entities included in this publication.

Figure 4: Market capitalisation per commodity

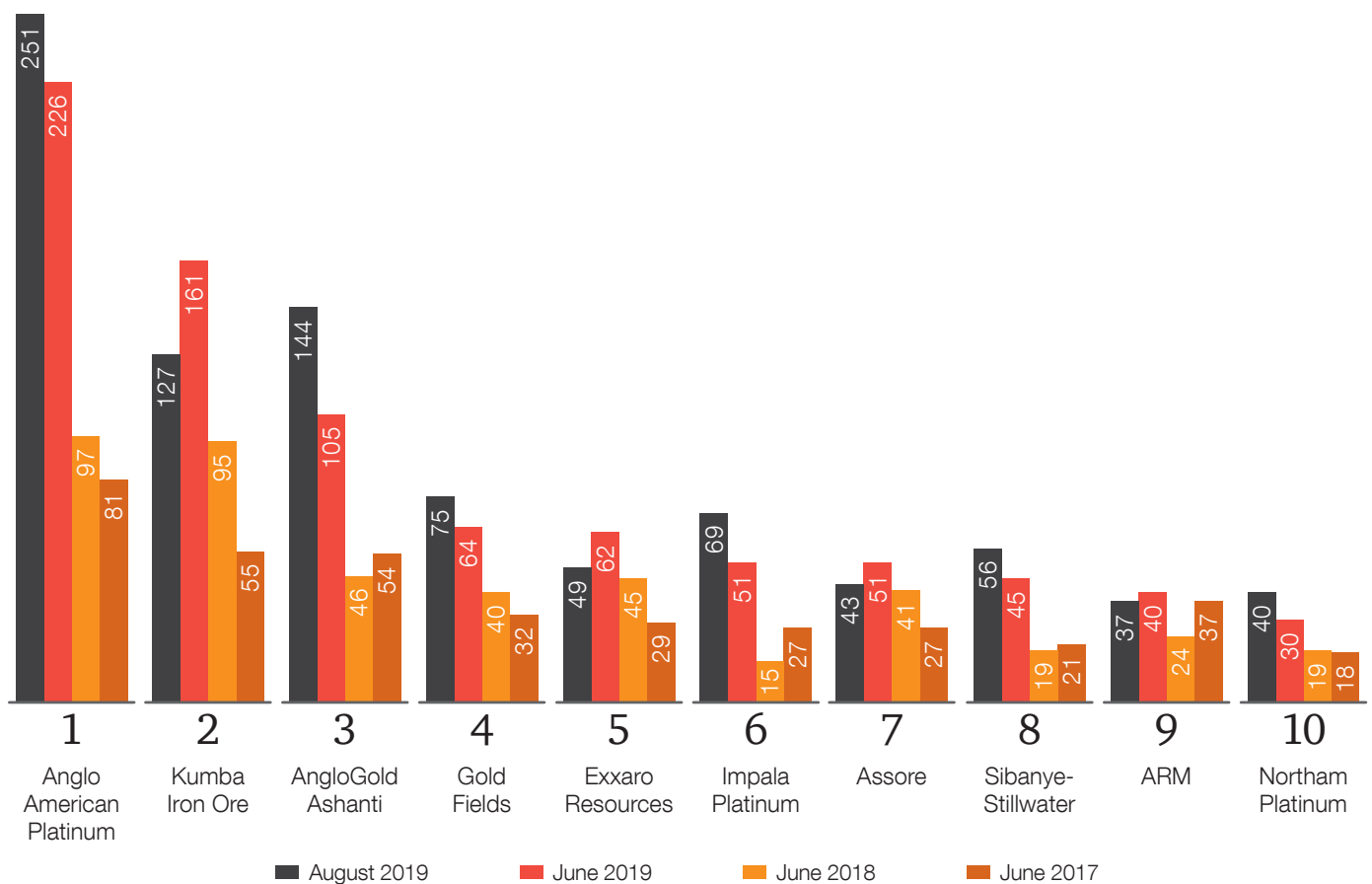


Source: IRESS, PwC analysis

Gold and PGMs continued to dominate the market capitalisation of the companies analysed and experienced a total market capitalisation increase of 133% and 129% respectively. Despite a R65 billion increase in iron ore and a R29 billion increase for diversified miners, these increases were not enough to retain their proportionate share of market capitalisation.



Figure 5: Market capitalisation of the top 10 companies (R 'billions) as at 30 June 2019



Source: IRESS, PwC analysis

There has been no change in the composition of the top ten companies, but there has been some movement in the rankings. Impala Platinum and Gold Fields moved up by four and two places respectively. Exxaro Resources, Assore and African Rainbow Minerals (ARM) saw a drop in their positions, with their commodity prices showing a downward decline in the year.

The most notable performance is that of Impala Platinum which moved four places up and more than tripled its market capitalisation to June 2019 on the back of increased PGM prices and a strong financial and operational performance. The benefits from the strategic restructuring of the Rustenburg operations which commenced in the prior year can be seen and have contributed to the group's strong operational performance.

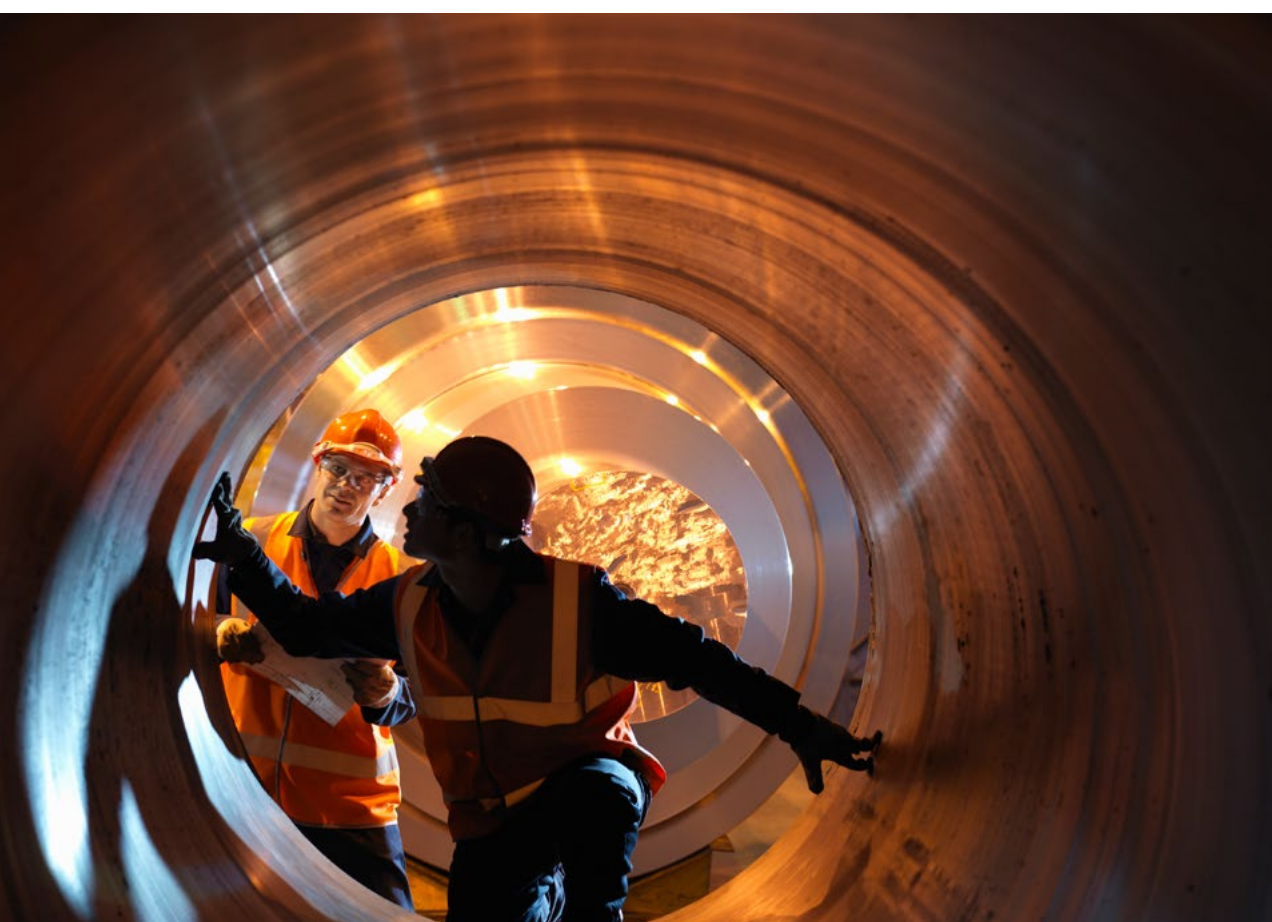
Anglo American Platinum continues to reap benefits from its portfolio optimisation and, together with an increase in PGM prices, boasts a staggering increase in its market capitalisation of R129 billion from June 2018 to June 2019. It grew a further R25 billion from July to August 2019.

Figure 6: JSE Mining Index vs HSBC Mining Index, 2003–2019



Source: IRESS, PwC analysis

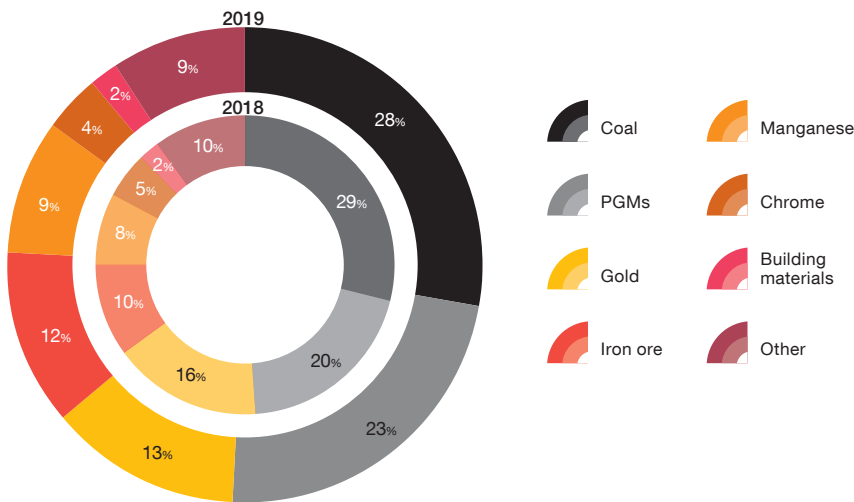
Figure 6 illustrates JSE Mining Index performance in USD against the HSBC Global Mining Index. As expected, it is relatively similar. The under performance of the JSE mining index from June 2015 is partly explained by the political uncertainty of the industry and under performing precious metals. With more regulatory certainty and an increase in precious metal prices, the JSE Mining Index closed the gap again, but is still below the average since 2003 represented by the 100 index line.



Revenue

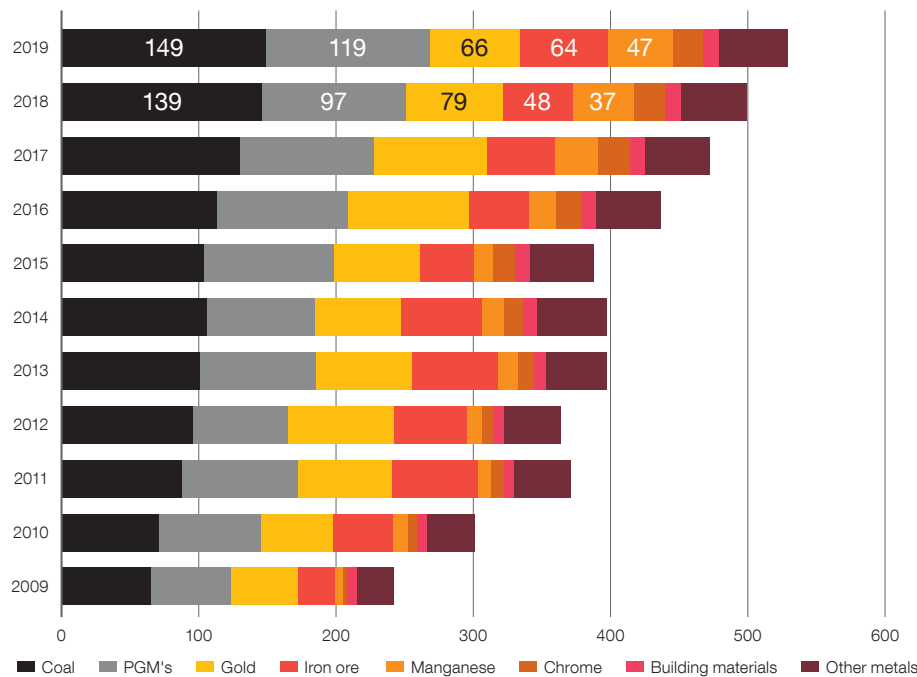
The total revenue generated by the South African mining industry for the year ended 30 June 2019, as reported by Statistics SA, was R529 billion.

Figure 7: Percentage mining revenue per commodity, 2019 vs 2018



Source: Stats SA, PwC analysis

Figure 8: Annual mining revenue per commodity (R 'billions)



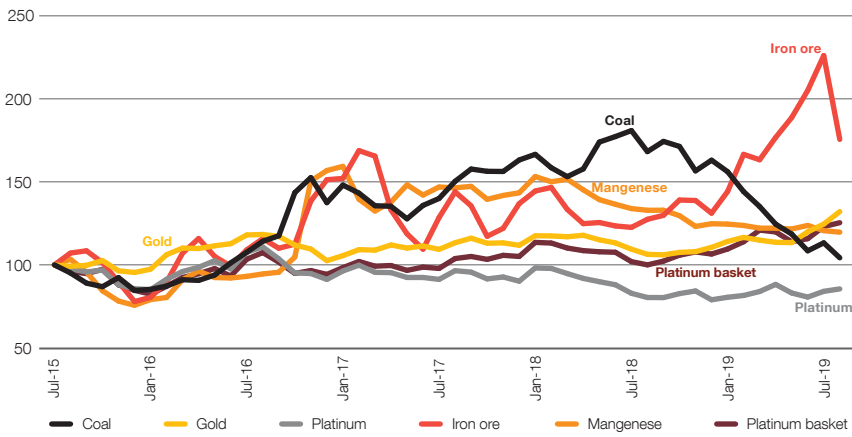
Source: Stats SA, PwC analysis

Total revenue grew by 6% for the year to June 2019. This was mainly driven by increased PGM, iron ore and manganese revenue. The PGMs had an increased revenue contribution following strong palladium demand pushing up the basket price and improved production in the sector since the prior year.

Coal remains the biggest revenue generator despite changing global consumer sentiment, and contributed 28% of mining revenue for the year.

Prices

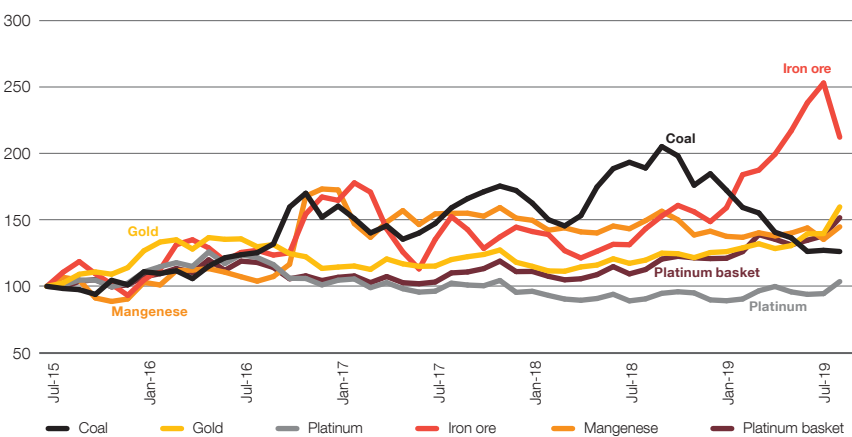
Figure 9: Commodities at USD-indexed prices



Source: World Bank, Johnson Matthey, PwC Analysis

Iron ore was the top performer for 2019 on the back of temporary supply constraints. The coal price gave back gains made in the last 2 years.

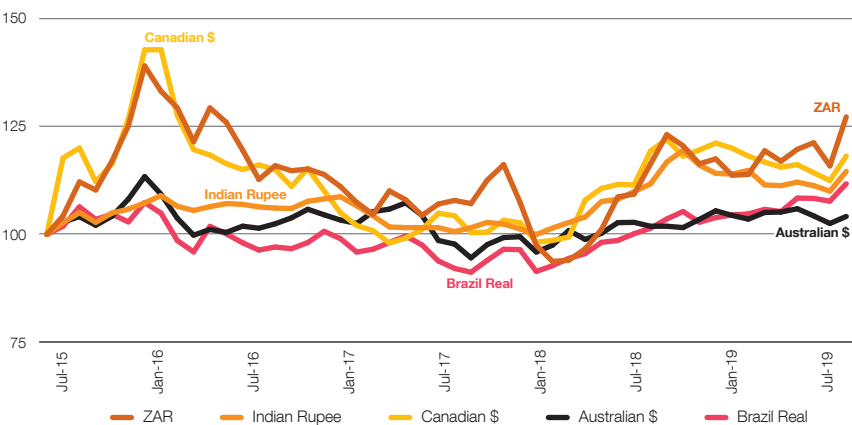
Figure 10: Commodities at ZAR-indexed prices



Source: World Bank, Johnson Matthey, PwC Analysis

Since 1970, the platinum price has been a good indication of platinum basket price movements. However, as can be seen from the price graphs, the basket price's growth significantly exceeded the platinum price. This divergence is as a result of impressive growth in palladium and rhodium prices. This pattern is similar to the 2000 to 2001 period when platinum was substituted by palladium in petrol catalytic converters. We expect the platinum basket to eventually return to parity.

Figure 11: Currencies indexed against the USD



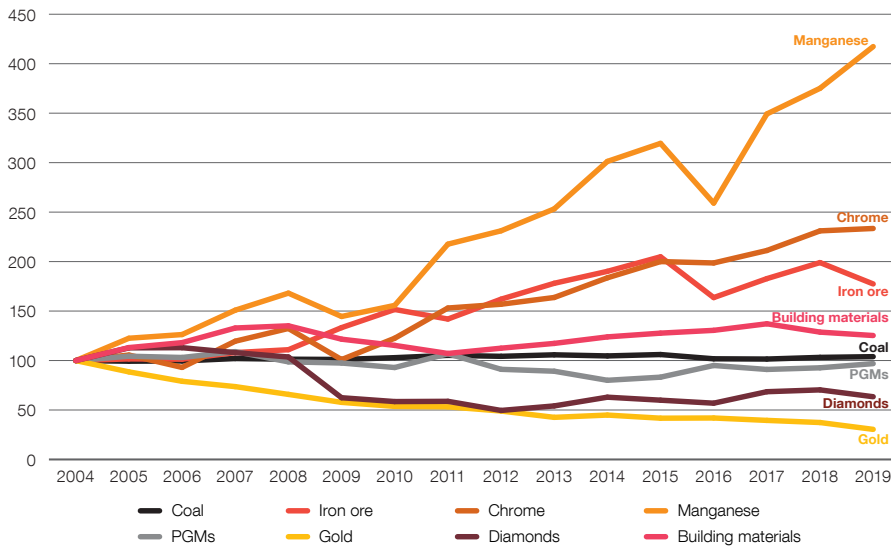
Source: IRESS, PwC Analysis

The weaker rand supported revenues but will eventually lead to higher input costs. As can be seen from figure 11, the rand's performance is reasonably in line with other resource rich countries

Production

Cost increases continue to put the mining industry under significant pressure. Although cost plays a key role in profitability, there are large fixed-cost elements associated with mining. Production levels therefore play a significant role in determining profitability.

Figure 12: Indexed annual production per commodity



Source: Stats SA, PwC analysis

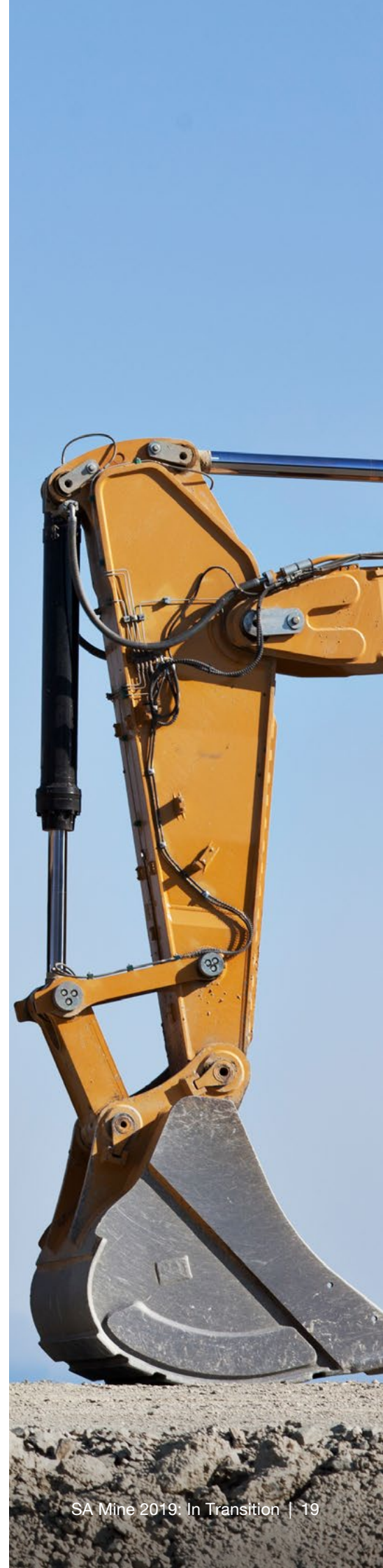
Manganese, iron ore and chrome are the only commodities that have seen real production growth over the last 15 years. Iron ore showed a decline over the course of the year partly due to plant maintenance at Sishen Iron Ore. Gold production is on an ongoing decline despite the higher rand gold prices, which shows the challenges of productivity in deep-level mining.

PGM producers have in the last few years also contributed to the supply of chrome as it is processed as a by-product from the Upper Group 2 (UG2) reef. More UG2 is currently being mined as the traditionally more lucrative Merensky reef is mined out in some mines.

The decrease in building materials from the prior year reflects sluggish local economic growth and resultant decline in demand for building materials.

Coal production saw a marginal increase on the prior year. However, production has remained largely flat over the last 15 years.

Lower production without a changing cost structure results in higher unit cost increases. The increased cost structure is therefore likely to put further pressure on declining production commodities, which could lead to further mine closures. A continued focus on productivity and cost efficiencies is required to ensure sustainable growth. Increased investments in technology can enable mining companies to unlock resources and improve costs.



Cash flows

Cash flows	Current year R 'billions	Prior year R 'billions	Difference R 'billions	% change
Cash flows related to operating activities				
Cash generated from operations before working capital changes	119	101	18	18%
Working capital changes	(6)	(4)	(2)	50%
Cash generated from operations after working capital changes	113	97	16	16%
Other	1	(1)	2	(200%)
Income taxes paid	(14)	(18)	4	(22%)
Net operating cash flows	100	78	22	28%
Purchases of Property, plant and equipment	(68)	(62)	(6)	10%
Free cash flow	32	16	16	100%
Cash flows related to other investing activities				
Purchase of investments	(7)	(34)	27	(79%)
Sale of investments	5	13	(8)	(62%)
Other	6	(1)	7	(700%)
Net other investing cash flows	4	(22)	26	(118%)
Cash flows related to financing activities				
Proceeds from ordinary shares issues	1	14	(13)	(93%)
Proceeds from interest-bearing liabilities	49	109	(60)	(55%)
Repayment of interest-bearing liabilities	(56)	(96)	40	(42%)
Distribution to shareholders	(27)	(16)	(11)	69%
Net financing cash flows	(33)	11	(44)	(400%)
Net increase/(decrease) in cash and cash equivalents	3	5	(2)	(40%)

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.

Purchase of property, plant and equipment

Capital expenditure increased from the prior year by 10%. The gold sector was the largest contributor to this with R34 billion in capital expenditure in the current year, compared to R20 billion in the PGM sector. However, when one considers that the bulk of the gold expenditure occurred in USD functional currency entities, the increase is largely as a result of the weakened rand exchange rate. Excluding the exchange rate impact, expenditure actually remained flat.

Investing activities

With the strengthening of commodity prices and the increases in production, mining companies are beginning to catch up deferred sustaining capital expenditure and continue to invest in projects with short repayment terms. However, there is still no real significant new mine investments. It is therefore pleasing to note the progress with Orion Minerals' Prieska zinc and copper project.

Financing activities

Borrowings

With relative low market capitalisation levels, debt has become the primary mechanism used to finance mining companies. This is evident in the current year with little to no capital being raised on the equity market. As in prior years, mining companies have continued to renegotiate and/or roll the finance facilities they have in place in order to assist in growing and managing the business. This has been the case in the current year with companies like Harmony Gold and Sibanye-Stillwater having restructured their financing arrangements.

Distribution to shareholders

Dividends are generally paid after the financial year end. In the current year we saw distribution to shareholders increase to R27 billion (2018: R16 billion) on the back of improved free cash flows.

Kumba Iron Ore paid a dividend of R12.5 billion (2018: R6.7 billion). In the current year, Kumba Iron Ore changed its dividend policy, which targeted a dividend range of between 50% and 75% of headline earnings.

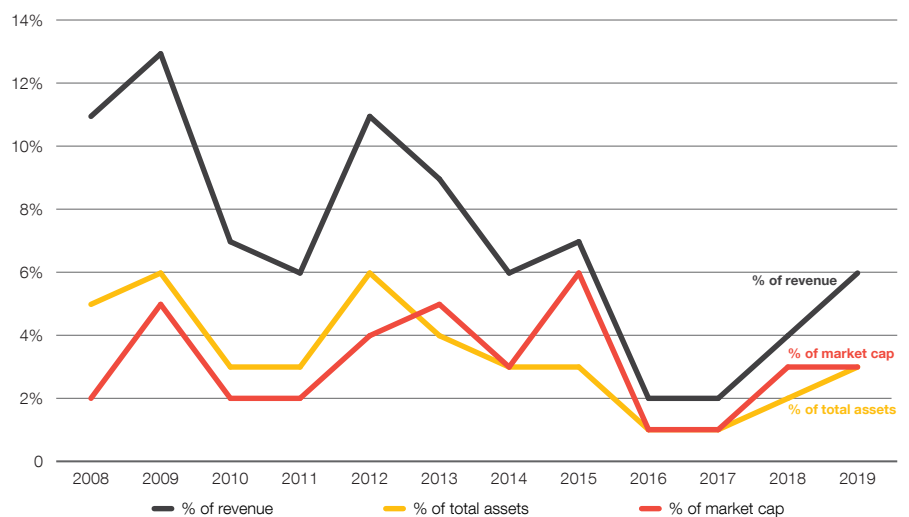
Exxaro Resources paid a dividend of R5.5 billion (2018: R2.2 billion). The board approved a revised dividend policy in 2018. The revised dividend policy comprises two components; firstly, a pass through of the Sishen Iron Ore Company dividend received and secondly, a dividend based on a targeted cover ratio of 2.5 times to 3.5 times core attributable coal earnings.

Other notable dividends include R2.4 billion paid by African Rainbow Minerals and R2.3 billion paid by Assore.

Despite increased gold and PGM basket price increases, Anglo American Platinum was the only precious metal miner paying a substantial dividend of R1.9 billion. Post their year end, Anglo American Platinum revised their dividend policy to increase their pay-out ratio from 30% to 40% of headline earnings and declared a dividend of R3 billion.

The years of extreme low profitability in these sectors means that balance sheets first need to be strengthened and required sustaining capital expenditure undertaken before dividends can be paid.

Figure 13: Dividend yield



Source: PwC analysis

Income statement (rands)

	Current year R 'billions	Prior year R 'billions	Difference R 'billions	% change
Revenue from ordinary activities	443	397	46	12%
Operating expenses	(332)	(308)	(24)	8%
EBITDA	111	89	22	25%
Impairment charge	(22)	(45)	23	(51%)
Depreciation charge	(46)	(45)	(1)	2%
Profit/(loss) before interest and tax	43	(1)	44	(4400%)
Net interest	(11)	(11)	-	-
Tax expense	(15)	(9)	(6)	67%
Equity accounted income	15	12	3	25%
Discontinued operations	-	1	(1)	(100%)
Net profit/(loss)	32	(8)	40	(500%)
EBITDA margin	25%	22%		
Net profit margin	7%	(2%)		

Source: PwC analysis

Income statement (USD)

	Current year R 'billions	Prior year R 'billions	Difference R 'billions	% change
Revenue from ordinary activities	31	30	1	3%
Operating expenses	(23)	(24)	1	(4%)
EBITDA	8	6	2	33%
Impairment charge	(1)	(3)	2	(67%)
Depreciation charge	(3)	(3)	-	-
Profit/(loss) before interest and tax	4	-	4	100%
Net interest	(1)	(1)	-	-
Tax expense	(1)	(1)	-	-
Equity accounted income	1	1	-	-
Discontinued operations	-	-	-	-
Net profit/(loss)	3	(1)	4	(400%)

Source: PwC analysis

As seen from the statements above the weaker rand had a positive effect on the growth of revenue for the year at 12%. However should the foreign exchange effect be removed the growth of revenue in USD terms remained relatively flat at 3% year on year.

Revenue

	Current year R 'billions	Prior year R 'billions	Difference R 'billions	% change
Gold	145	144	1	1%
PGM	204	164	40	24%
Other	94	89	5	6%
Total	443	397	46	12%

Source: PwC analysis

Gold producers showed a marginal increase in revenue. Despite the significant increase in gold price, the lower production (held back by mine closures as well as labour disruptions at Sibanye-Stillwater, which lasted for five months) offset this gain. As Sibanye-Stillwater has a December year-end, the bulk of the strike impact will only be reflected in next year's *SA Mine*.

The significant increase in PGM revenue was due to an increase in revenue from Impala Platinum by R12 billion and Anglo American Platinum by R8.8 billion. This was due to higher sales volumes, higher dollar metal prices and weaker exchange rates in the current period.

As PGMs in concentrate produced by Sibanye-Stillwater are still refined and sold by Anglo American Platinum, there is an element of duplication in revenue amounting to R11.4 billion.

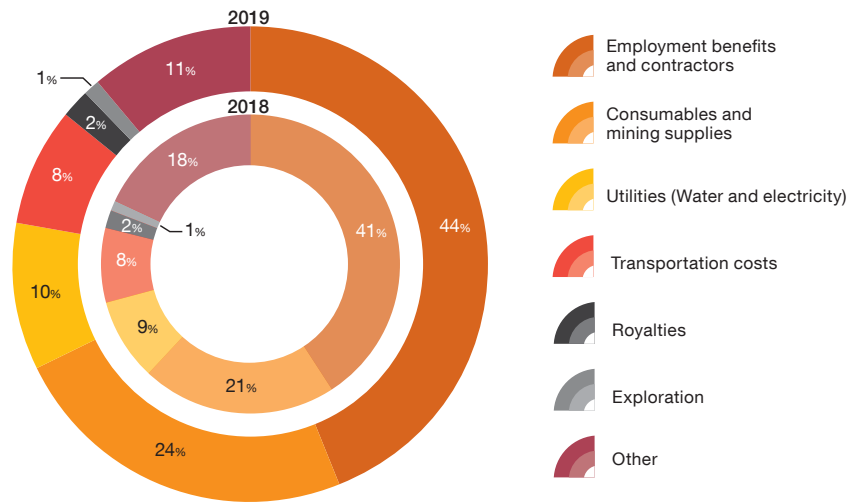
The 'other' segment revenue increased due to increases in bulk commodities prices such as coal and iron ore. The most notable increase was experienced by Exxaro Resources. This was mainly due to higher demand for coal at Eskom, which resulted in a R2.7 billion increase in revenue being reported in the current year.



Operating expenses

There has been an 8% increase in the operating costs in comparison to the previous year. The increased costs have been driven by the increased production in the current year, higher employment and electricity costs and inflationary increases in consumables and mining supplies.

Figure 14: Composition of operating expenses



Source: PwC analysis

Employee benefits and contractors

Labour costs remain the largest cost driver in the sector and continue to grow as labour cost increases remain above inflation.

Royalties

Improved revenue and profitability has seen a 4% increase in royalty taxes paid by mining companies for the current period. This increase is lower than the revenue growth percentage as part of the revenue growth is explained by growth outside the country e.g. Sibanye-Stillwater's USA operations.

Impairments

The current year impairment was halved compared to the previous year. The total impairment amounted to approximately R22 billion mainly as a result of ongoing platinum and gold impairments. The reduction was due to the improvement in commodity prices in the current year as well as improved performance across the mining sector.

EBITDA

The average EBITDA margin of the 26 companies included in this publication is 25.0%, which is higher than the previous year's 22.6%. Only six of the 26 companies have an EBITDA margin in excess of the average margin.

	Current year	Prior year	Difference
Gold	26,0%	26,3%	(0,3%)
PGM	18,4%	16,4%	2,0%
Other	34,1%	27,8%	6,3%

Source: PwC analysis

Tax expense

The aggregated tax expense for the 26 companies is R15 billion, with an effective tax rate of 32%. This represented a 62% increase in the tax expense in the current year driven by increased profitability.

Net profit/(loss)

Improved PGM performance on the back of higher PGM rand prices and lower impairments have resulted in triple digit growth in net profit in the current year.

Financial position

Financial position

	Current year R 'billions	Prior year R 'billions	Difference R 'billions	% change
Current assets				
Cash and cash equivalents	70	64	6	9%
Inventories	78	67	11	16%
Receivables and other current assets	44	40	4	10%
Derivative financial assets	-	1	(1)	(100%)
Assets held for sale	6	11	(5)	(45%)
Total current assets	198	183	15	8%
Non-current assets				
Mining and production assets	430	405	25	6%
Goodwill	10	10	-	0%
Investments	98	90	8	9%
Other non-current assets	44	38	6	16%
Total non-current assets	582	543	39	7%
Total assets	780	726	54	7%
Share capital and reserves				
Share capital	386	353	33	9%
Reserves and non-controlling interest	34	43	(9)	(21%)
Total equity	420	396	24	6%
Current liabilities				
Accounts payable and other liabilities	92	83	9	11%
Interest bearing liabilities	16	10	6	60%
Total current liabilities	108	93	15	16%
Non-current liabilities				
Interest bearing liabilities	123	121	2	2%
Deferred taxation liabilities	61	58	3	5%
Derivative financial liabilities	3	3	-	-
Other non-current liabilities	64	48	16	33%
Liabilities held for sale	1	5	(4)	(80%)
Total non-current liabilities	252	235	17	7%
Total liabilities	360	328	32	10%
Total equity and liabilities	780	726	56	8%

Source: PwC analysis

Key ratios

When comparing the market capitalisation to the net asset value for the 26 mining companies analysed, there has been a significant improvement in comparison to the previous year. This is largely due to the steady improvement in commodity prices in the current year.

Key ratios

	Current year	Prior year	Global mine
Market capitalisation to net asset value (times)	2.1	1.2	1.4
Net borrowings (R 'billions)	75	73	
Gearing percentage	14%	15%	22%
Solvency ratio (times)	2.2	2.2	2.0
Current ratio (times)	1.8	2.0	1.6
Acid ratio (times)	1.1	1.2	1.2
Net borrowing to EBITDA	0.7	0.8	0.9

Source: PwC analysis

The liquidity position of the mining industry in South Africa, although marginally weaker than the previous year, is seen to be stronger than the global mining sector. This weaker position is driven by six companies (prior year seven) that have current ratios below 1.0, and 14 companies (prior year 12) with an acid test ratio less than 1.0. With increasing production levels in the current year this has resulted in increased inventory levels, which has not yet translated into revenue.

Gold

Despite the steady increases in the gold price and weakening in the rand in the current year, gold companies have dealt with additional impairments, which have led to a weakening in the companies' solvency ratios.

The liquidity position of the gold companies has decreased in the current year, this is mainly attributable to an increase in the short-term interest-bearing borrowings raised by gold companies.

Platinum

Improved cash flows allowed the repayment of debt and resulted in a reduction to the gearing ratio for the platinum mining companies for the current period.

Key ratios: Gold and platinum

	Gold		Platinum	
	Current year	Prior year	Current year	Prior year
Net borrowings (R 'billions)	78	68	13	22
Gearing percentage	41%	39%	21%	23%
Solvency ratio (times)	1.7	1.8	2.3	2.3
Current ratio (times)	1.3	1.5	1.9	1.7
Acid ratio (times)	0.7	1.0	1.0	0.9
Net borrowing to EBITDA	2.1	1.8	0.3	0.6

Source: PwC analysis

Broadly giving back: Creating value all around

During the 2018–2019 financial period, mining companies have continued to create value on many fronts, through either distributions to shareholders, payments to suppliers of goods and services, royalties (rates applicable on sales of minerals extracted, higher rates applicable for more precious metals) or higher taxes (increased taxes on mining companies).

Mining companies are generally more exposed to the scrutiny of their stakeholders due to the significant impact their operations have on the communities in which they operate and society in general. Mining companies have the responsibility and the opportunity to create more value than most other industries, mainly due to the pervasiveness of their impact on society. Mining companies need to keep creating the value they are known for and also consider how their brand is communicated. (Refer to PwC’s *Mine 2019: Resourcing the future*). The principle applies equally to mining companies in South Africa, especially considering their pervasive and key socio-economic impact in rural communities.

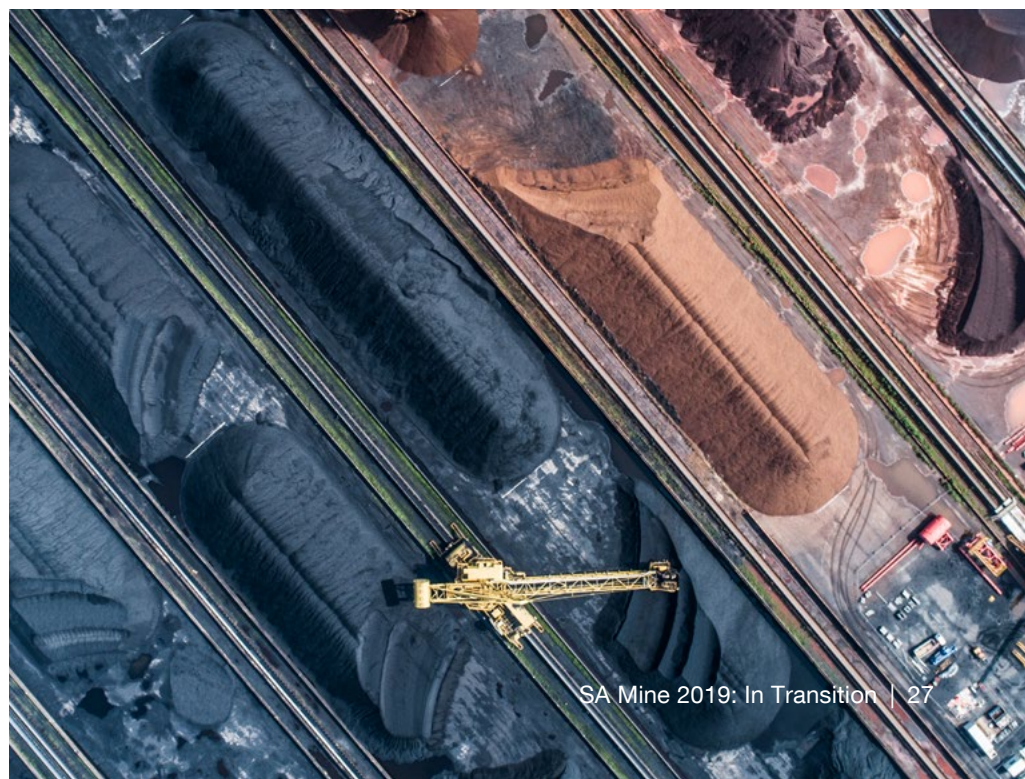
Employees continue to receive the biggest share of value created. Despite an increase in their value received, their share started to reduce from unsustainable high levels as increased profitability allowed mining companies to increase their capital expenditure and distributions to shareholders.

Value creation to shareholders grew to 12% in the current period, up from 8% in the prior year. The increase is mainly as a result of the increased iron ore prices and resultant dividends from iron ore producers.

Direct corporate taxes to governments reduced due to the timing of specific payments in the prior year. As unredeemed capital expenditure and tax losses are utilised, government’s share of 17% of value created is likely to increase in the next financial year. It is important to note that this value does not include the benefit of other indirect taxes and the multiplier effect on suppliers to the mining industry.

Community investment that only reflects 1%, is not a real reflection of the benefits for local communities, but rather a function of the limited disclosure on these investments in financial statements with sustainability reports often only issued at a later stage. Communities often also share in the development of local transport, education and healthcare infrastructure as well as the ability to supply goods, services and employment to mines in their region.

Value added	2019	2018
Employees	39%	42%
Employee taxes	8%	8%
Direct taxes	6%	9%
Mining royalties	3%	3%
Capital expenditure	30%	30%
Return to providers of debt funding	6%	6%
Distribution to shareholders	12%	8%
Community investment	1%	1%
Funds retained	(5%)	(7%)



Mergers & acquisitions



Capital allocation is key for any mining company. Mining companies are realigning their asset portfolios with their long-term strategies, resulting in ongoing disposals of non-core assets and a significant increase in acquisitions. Mining analysts expected local companies to consolidate as a strategy to mitigate against operational inefficiencies and rising input costs. However, consolidation can only improve efficiency if it unlocks true synergies. Consolidation too often hides inefficiencies and does not result in the improved performance expected. Acquisitions should therefore be approached in a disciplined fashion.

Gold

South Africa's gold production accounts for only 4% of the global gold production, having historically held the position of the world's leading gold producer, and new large scale investment in South Africa's gold sector is highly unlikely. Gold has been talked about largely as a result of the challenging inefficient deep level operations. Although there are still substantial resources left, distance from existing shaft infrastructure, safety concerns and the increased labour and electricity cost basis is putting pressure on margins despite record high rand gold prices. In the absence of significant technological breakthroughs, South Africa will struggle to remain globally competitive in gold production. The majors have announced a very public drive to sell off their remaining South African gold assets with a focus offshore. Mergers & acquisitions in the gold sector will likely be driven by these disposals as well as further potential consolidation.

PGMs

Sibanye-Stillwater has stood out as a miner with substantial ambitions and with the acquisition of Lonmin, is now the world's largest primary PGM producer. Mergers & acquisitions among PGM miners will be driven by producers looking to dispose of unprofitable operations and potential consolidation opportunities where geographical synergies can be extracted. New projects will be driven by an improving PGM basket price, but is likely to focus on mechanised mining potential. While the commodity faces similar challenges to those faced in the gold sector, as South Africa is still the largest producer with limited significant platinum resources outside Southern Africa, it is likely to continue to attract attention.

Coal

The coal industry, having experienced near record prices in the recent past, will likely remain constrained in South Africa given the numerous challenges in terms of new project development, infrastructure constraints and of course, Eskom's ability to commit to long term off-take agreements. The global energy transition challenge to reduce carbon emissions also weigh in on coal's long term outlook.

Major producers have already announced, or have proceeded to dispose of, their Eskom linked mines. Anglo American Group has disposed of all its Eskom linked mines to new entrants and black-owned mining companies. The perceived Eskom 51% BEE procurement requirement poses a grave deterrent to external investment in the local sector, specifically as it relates to domestic production.

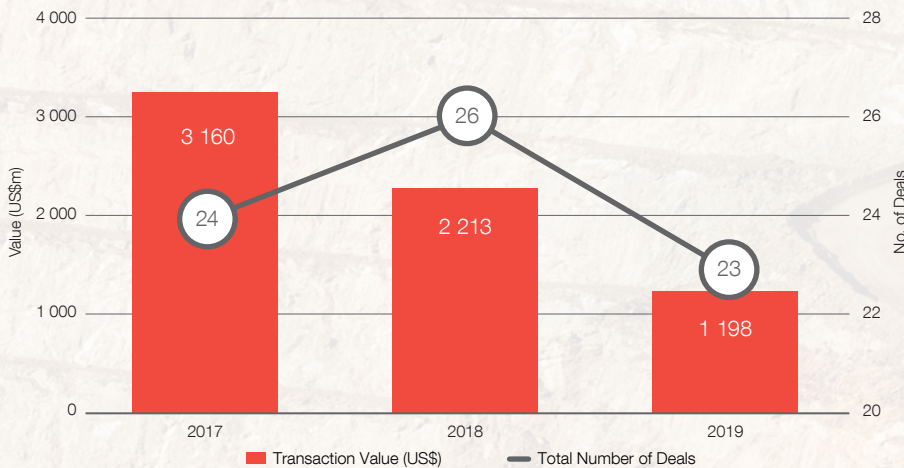
South32 is in the process of disposing of its South African coal assets, with Seriti Resources the preferred bidder. This leaves Exxaro Resources and Glencore plc as the remaining majors, followed by a wealth of junior miners competing for a position in the local and seaborne market. The sector could, however, be buoyed by demand from India as well as government's intentions to improve the infrastructure network, thereby unlocking further export potential in the long term.

Mergers & acquisitions activity

23 South African mining merger and acquisition transactions were announced in 2019, largely driven by coal consolidation and divestments, as well as strategic portfolio realignment within the PGM sector. Total transactions according to Bloomberg and Merger Market amounted to USD 1.20 billion. While we have seen a number of producers publicly announcing strategic reviews and disposal processes, only nine transactions have been announced in the first half of 2019.

This is compared to 26 transactions announced in 2018, amounting to USD 2.21 billion, driven by positive inbound investment as well as unprofitable asset disposals, specifically in precious metals and coal. Potential M&A activity in the short to medium term is still expected to be driven by a number of publicly announced strategic reviews and disposal processes as opposed to large scale opportunistic acquisitions.

Figure 15: Number of announced and disclosed M&A transactions and values



Source: Bloomberg, Mergermarket, 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 reported on each in the edition of *SA Mine*. The column for 2018 presented below relates to the results of the companies included in our previous edition, while in the financial review, we analyse the results of this year's top companies for both 2019 and 2018.

The reason for the difference in 2018 in this summary and the income statement may be ascribed to the exclusion of some entities from this publication, offset by the inclusion of others, as well as retrospective changes in errors or accounting policy.

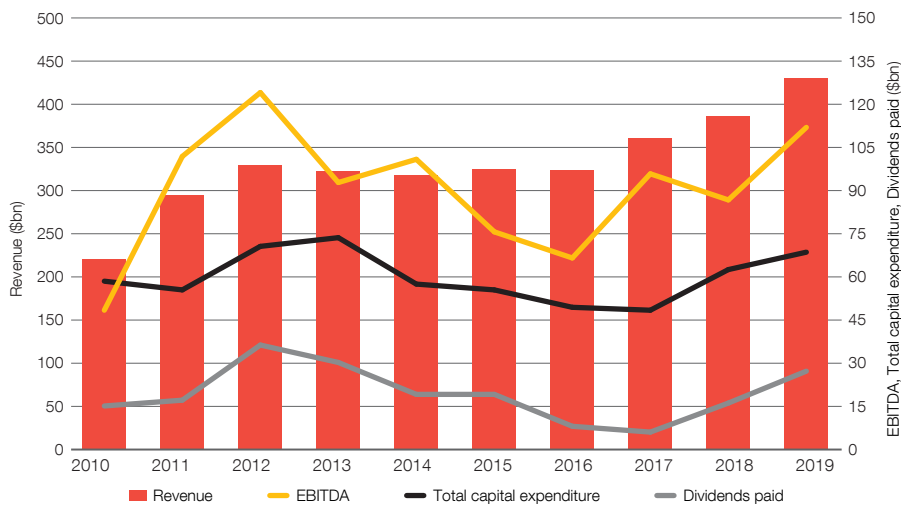
Ten-year summary of financial information (R 'billions)

R billion	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Market capitalisation	884	482	420	560	414	675	597	833	929	879
Aggregated income statement										
Revenue	443	398	371	333	335	327	332	339	303	227
EBITDA	111	86	95	66	75	100	92	123	101	48
Impairment charges	(22)	(46)	(22)	(60)	(24)	(49)	(25)	(2)	(5)	2
Net finance costs	(11)	(11)	(10)	(10)	(7)	(6)	-	(3)	(4)	(3)
Income tax expense	(15)	(9)	(11)	(2)	(8)	(8)	(16)	(29)	(22)	(14)
Net profit/ (loss)	32	(11)	16	(46)	2	6	25	65	55	20
EBITDA Margin	25%	22%	26%	20%	22%	31%	28%	36%	33%	21%
Aggregated cash flow statement										
Cash flow from operating activity	100	79	83	69	62	70	74	112	62	40
Total capital expenditure	(68)	(62)	(48)	(49)	(55)	(57)	(73)	(70)	(55)	(58)
Free cash flow	32	17	35	20	7	13	1	42	7	(18)
Other investing cash flows	4	(20)	(8)	4	3	(5)	(10)	(8)	(9)	12
Dividends paid	(27)	(16)	(6)	(8)	(19)	(19)	(30)	(36)	(17)	(15)
Other financing cash flows	(6)	27	(8)	(7)	11	3	34	9	21	(10)
Aggregated balance sheet										
Cash	70	65	58	46	38	33	45	46	43	43
Property, plant and equipment	430	406	403	414	425	422	449	411	380	353
Total assets	780	717	691	709	724	694	694	650	595	548
Total liabilities	360	325	296	311	293	270	296	237	217	226
Total equity	420	392	395	398	431	424	398	413	378	322

Source: PwC analysis

The trend of increasing revenue, which began in 2017, has continued with 16 of the 26 companies analysed showing an increase in revenue for the current financial year. Cost discipline meant that margins could grow. Unfortunately, the above inflationary cost increases and the weaker rand/US Dollar exchange rate is likely to contribute to higher input costs and erode margins.

Figure 16: Ten-year historical financial information (R 'billions)



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 listing on the JSE, for the financial year ends to June 2019. 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 publically available and consists primarily of annual reports or reviewed results made available to shareholders. Companies have different year ends.

Information has been aggregated for the financial years of individual companies and no adjustments have been made to take into account different reporting requirements and year ends. As such, the financial information shown for 2019 covers the reporting periods from 1 October 2017 to 30 June 2019, with each company's results included for the 12-month financial reporting period that falls into this time frame.

Information for the previous year comprises information for the 26 companies selected in the current year, except where indicated otherwise.

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 (ARM)	30 June 2019
2	Alphamin Resources Corporation	31 December 2018
3	Anglo American Platinum Limited	31 December 2018
4	AngloGold Ashanti Limited	31 December 2018
5	Assore Limited	30 June 2019
6	Buffalo Coal Corp.	31 December 2018
7	Chrometco Limited	28 February 2019
8	DRD GOLD Limited	30 June 2019
9	Exxaro Resources Limited	31 December 2018
10	Gemfields Limited	31 December 2018
11	Gold Fields Limited	31 December 2018
12	Harmony Gold Mining Company Limited	30 June 2019
13	Impala Platinum Holdings Limited (Impala Platinum)	30 June 2019
14	Kibo Energy plc	31 December 2018
15	Kore Potash plc	31 December 2018
16	Kumba Iron Ore Limited	31 December 2018
17	Lonmin plc*	30 September 2018
18	Merafe Resources Limited	31 December 2018
19	Northam Platinum Limited	30 June 2019
20	Orion Minerals Limited	30 June 2018
21	Pan African Gold plc	30 June 2019
22	Royal Bafokeng Platinum Limited	31 December 2018
23	Sibanye-Stillwater Limited	31 December 2018
24	Tharisa plc	30 September 2018
25	Wescoal Holdings Limited	31 March 2019
26	Wesizwe Platinum Limited	31 December 2018

* Although Lonmin was already acquired by Sibanye-Stillwater by 30 June 2019 its results to September 2018 were included.

Glossary

Terms	Definition
acid ratio	(current assets less inventory)/current liabilities
BEE	black economic empowerment
CO ₂	carbon dioxide
current ratio	current assets/current liabilities
DEA	Department of Environmental Affairs
EBITDA	earnings before interest, tax, depreciation, amortisation and impairments
EBITDA margin	EBITDA/revenue
EU&R	energy, utilities and resources
gearing percentage	net borrowings/(net borrowings plus equity)
GHG	Greenhouse gas
GJ	gigajoule
JSE Limited	the Johannesburg Stock Exchange
market capitalisation	The market value of the company calculated as the number of shares outstanding, multiplied by the share price
net asset value	total assets less total liabilities
net borrowings	interest-bearing debt, less cash
net profit margin	net profit / revenue
USA	United States of America
PGMs	platinum group metals
solvency ratio	total assets / total debt
UG2	upper group 2 reef
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.

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

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