
SA Mine

9th edition



*Highlighting trends
in the South African
mining industry*

September 2017



www.pwc.co.za/mining

Content



The information contained in this publication is provided for general information purposes only, and does not constitute the provision of legal or professional advice in any way. Before making any decision or taking any action, a professional adviser should be consulted. No responsibility for loss to any person acting or refraining from action as a result of any material in this publication can be accepted by the author, copyright owner or publisher.



1. *Executive summary* **01**

2. *South Africa's mining landscape* **05**

3. *Integrating risk into business strategy* **15**

4. *Improving value to stakeholders* **21**

5. *Mining in Africa – a changing landscape* **33**

6. *Financial performance* **51**

7. *Glossary* **71**

8. *Companies included in the analysis* **73**

9. *Basis for compiling this report* **75**

10. *About PwC* **77**

1

Executive summary



	Current year	Prior year	Difference	% change
	R' billions	R' billions	R' billions	
Revenue from ordinary activities	371	328	43	13%
Adjusted EBITDA	95	65	30	46%
Impairment charge	(22)	(58)	(36)	62%
Net profit/(loss)	17	(46)	63	137%
Distribution to shareholders	(6)	(8)	2	25%
Net operating cash flows	83	68	15	22%
Capital expenditure	(48)	(48)	0	0%
Total assets	691	689	2	0%

This is the ninth in our series of annual publications highlighting trends in the South African mining industry.

The 2017 year has to be described as a year of policy uncertainty and real questions over the long-term sustainability of the industry.

After the price lows of December 2015 and January 2016, the current year saw USD prices recover for most commodities with the exception of platinum. Although some USD price gains were offset by a stronger rand, the improved prices did bring the industry as a whole back into profitability.

Coal and iron ore in particular continued their growth path and performed well during the year. Precious metals battled with lower USD prices and a stronger rand in the second half of the period. Although the aggregate position has improved, these precious metals are still challenged as reflected in various recent announcements of planned mine closures and retrenchments.

We've included price and production performance of chrome and manganese this year as a result of their impressive price performance towards December 2016 and the dominant position of South African supply for these commodities.

The cost control measures that the industry took ownership for started to pay off with more manageable operating cost increases. Impairments were largely limited to precious metals with a substantial decrease from R58 billion to R22 billion.





Despite the improved financial performance, regulatory announcements in June 2017 resulted in market capitalisation dropping to June 2015 levels. The subsequent recovery to the end of August was aided by improved USD prices and hope by investors that the suspended new Mining Charter would be revised before final implementation.

The mining industry continues to add value to all its stakeholders. As reported in company value added statements, employee's still take the lion's share of value added at 40%, followed by the government through direct taxes, payroll and royalties with 19%. Shareholders got a disappointing 2% in the form of distributions.

Capital expenditure remained at 10-year lows in line with the prior year, a reflection of the industry's uncertain outlook. The long-term nature of mining investments translates into a significant lag in the supply response to price changes. This lag contributes to the cyclical nature of the mining industry.

The austerity measures with regards to shareholder distributions, capital expenditure and general cost focus, aided by the improved price, along with various debt restructurings and settlements, resulted in an improved financial position for the industry. Net debt reduced by more than a third and solvency, liquidity and gearing ratios improved. Although the aggregate position improved, there is still concern over some individual entities, especially in the platinum sector where real prices still haven't recovered.

The success of mining companies' cost management strategies include various back-to-basics initiatives. However, there is also a growing drive for technologically-focussed initiatives to improve efficiency and effectiveness.

In this edition, we've included a brief look at regulatory changes in Nigeria, the DRC and Tanzania and what they hope to achieve. It will be interesting to see the positive and negative impacts of these changes in the long term and how South Africa's uncertain regulatory environment will be shaped in future.



Scope

Our findings are based on the financial results of mining companies with a primary listing on the Johannesburg Stock Exchange (JSE), as well as those with a secondary listing on the JSE whose main operations are in Africa.

We have only included companies with a market capitalisation of more than R200 million at the end of June 2017 and have excluded companies with suspended listings. In all, 29 companies met these criteria. Due to our earlier report date, four of these companies hadn't released their results at the time of writing and have been excluded from our financial analysis.

Section 8 provides a list of all mining companies included in our analysis. The number of entities reduced by two from the prior year, one new entity, Baubu Platinum, was included while three previously included entities were left out as a result of their delisting, one as a result of corporate action.

While many of the entities included in our analysis have international exposure, the bulk of their operations are in Africa. Global mining companies Anglo American¹, BHP Billiton, Glencore and South32 were excluded. While these companies have significant South African operations, their global exposure and size mean that they do not necessarily reflect trends in the South African mining environment.

A global view on mining is provided in our annual global mining industry publication, *Mine*.²

The findings of this report are based on publicly-available information—predominantly annual reports for financial years ending no later than 30 June 2017. Where annual reports were not available, we used preliminary reviewed results.

Michal Kotzé

PwC Africa Energy Utilities
& Resources Leader

Andries Rossouw

Mining Assurance Partner
& Project Leader

¹ Kumba Iron Ore and Anglo American Platinum are included in our analysis.

² <http://www.pwc.com/id/en/pwc-publications/industry-publications/energy--utilities---mining-publications.html>

2

South Africa's Mining landscape



Overview

The 2017 financial year was another tough one for stakeholders in the mining sector:

- Investors in aggregate saw a decrease in dividends and market capitalisation after a cautiously optimistic view on a recovery last year;
- Decreases in precious metal rand prices have put a lot of pressure on conventional deep-level platinum and gold mines' profitability and sustainability;
- Tax authorities only saw marginal increases in taxes paid;
- Employees experienced further retrenchments with the prospect of more to come; and
- On the fifth anniversary of the Marikana tragedy, communities around some mines are still desperate for improved service delivery and employment.

The negative environment has been offset somewhat by the excellent recovery in the prices of coal, iron ore, manganese and chrome over the last 18 months. Mining companies that have repositioned themselves within the current low-price environment have also started to see the benefits of cost saving initiatives reflected in lower operating cost increases.

The low price environment has also opened doors for a number of transactions to happen as companies are repositioning their portfolios for their revised strategies.

Market capitalisation

The 2017 year saw market capitalisation of the entities analysed decrease to almost the low levels of 2015. The decrease in market capitalisation was predominantly precipitated by the significant decrease in the market capital of gold mining companies after the optimistic view on gold last year, and a further decrease in the market capital of platinum mining companies.

The 30 June 2017 market capitalisation of the 29 companies analysed in this publication was R420 billion, a 25% decline from R560 billion as at 30 June 2016. Market capitalisation recovered somewhat to R506 billion as at 31 August 2017.

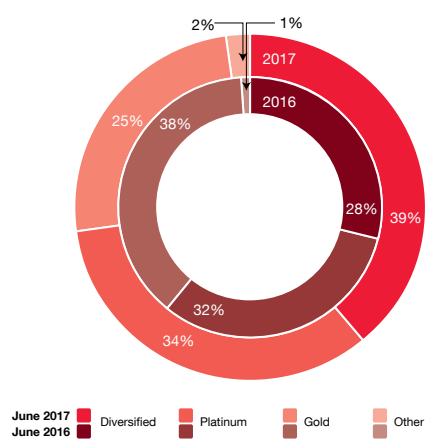
Gold mining companies suffered a R114 billion or 52% decrease in market capitalisation, losing almost all the gains made in the prior year. These decreases came on the back of a lower June 2017 rand gold price, which was 15% lower than in June 2016. At the same time operating costs increased, silicosis provisions were raised, challenging conditions in other African countries continue and the need to restructure unprofitable South African operations intensified. The decrease resulted in gold's share of the analysed market capitalisation dropping to 25% from 39% in the prior year. Note that we've reclassified Sibanye Stillwater as a diversified entity in the current and comparative year as a result of its growing PGM interest.





Platinum's market capitalisation decreased by 21% to R141 billion in the extremely low platinum price environment. However, platinum miners' share of analysed market capitalisation increased marginally to 34%.

Fig 1: Market capitalisation per commodity



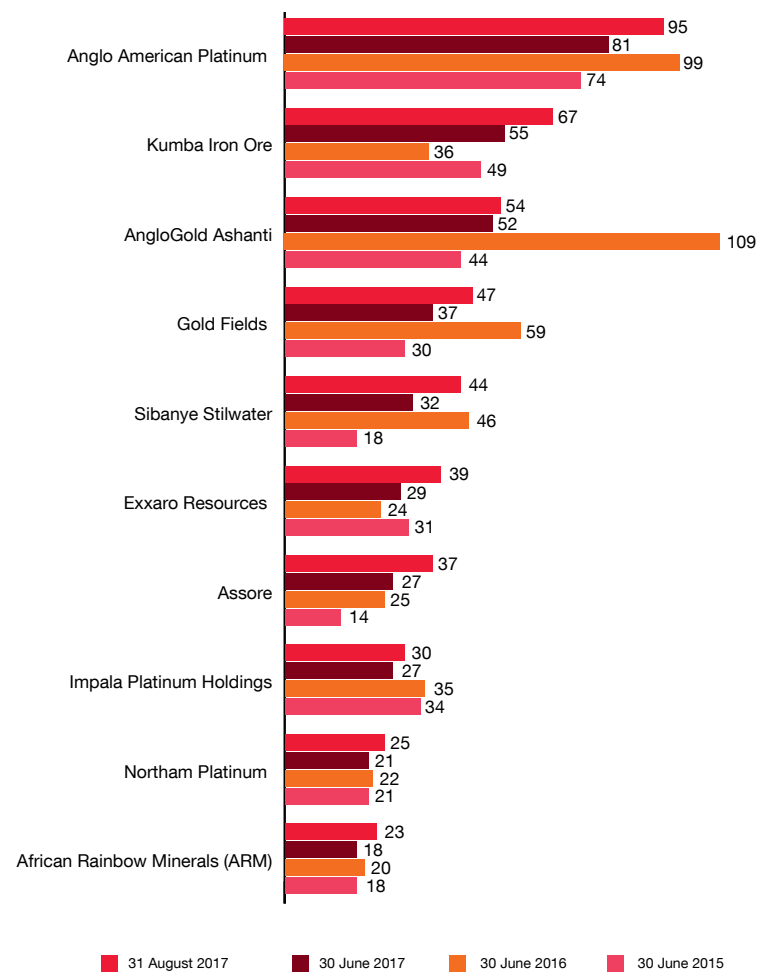
Source: Business Day and PwC analysis

Diversified companies increased their share of the analysed market capitalisation to 39% to R166 billion. This increase was due to the substantial recovery in iron ore and coal prices.

The composition of the top 10 analysed in this publication has seen only one change since last year with Harmony Gold (9th last year) replaced by ARM (10th).

On the back of higher iron ore prices, Kumba Iron Ore, leapfrogged AngloGold Ashanti, Gold Fields and Sibanye Stillwater to claim the second position behind Anglo American Platinum.

Fig 2: Market capitalisation of the top 10 companies as at 30 June 2017 (R' billions)



Source: IRESS

Assore moved up 7th on the back of better manganese and iron ore prices. Impala Platinum Holdings and Northam Platinum moved down to 8th and 9th respectively as a result of lower PGM prices.

Market capitalisation of the top 10 companies, as at 30 June 2017, decreased by R95 billion to R379 billion, a 20% decrease. There was a partial recovery of R82 billion up to August 2017 as prices improved marginally and the industry hopes for a more practical revision of the new Mining Charter.

The most notable decrease was that of AngloGold Ashanti, which lost R57 billion of the R65 billion gained in 2016.

Market capitalisation among diversified companies showed good recoveries on the back of increased coal, iron ore, manganese and chrome prices.

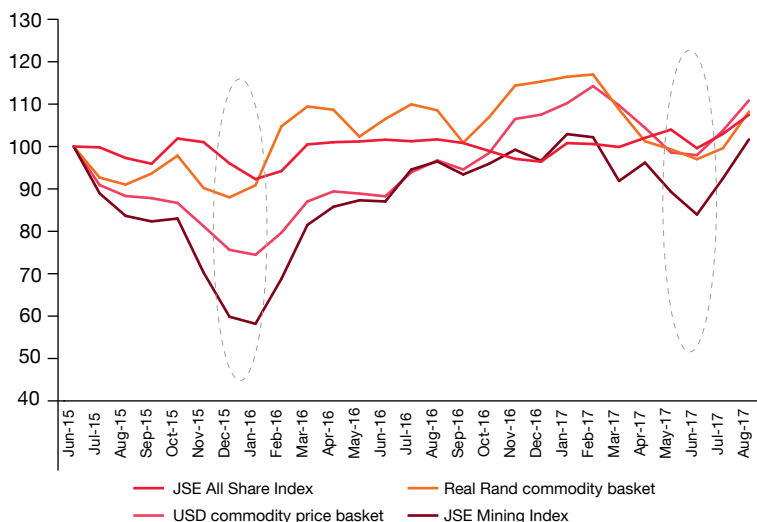
Platinum companies battled with low rand prices during the year. However, Anglo American Platinum retained its top spot.

The volatility of share prices and market capitalisation is apparent. While mining investments are of a long-term nature, investors often follow a very short-term investment horizon.

As we have discussed in past editions of this publication, there is good correlation between the movement

of commodity spot prices and the Global Mining Index. It is notable that in December 2015, when the rand weakened significantly after the changes in finance ministers, the weak rand, which shielded the then significant decrease in USD commodity prices, was not sufficient to save the Mining Index from a 30% decline on the back of negative sentiment regarding the industry and the country. The JSE Mining Index recovered the deficit against the JSE All Share Index that arose in the prior year on the back of improved USD commodity prices. However, the publication of the new Mining Charter in June 2017 again created negative sentiment about the industry and resulted in a significant decline against the JSE All Share Index.

Fig 3: JSE Mining Index vs. JSE All Share Index

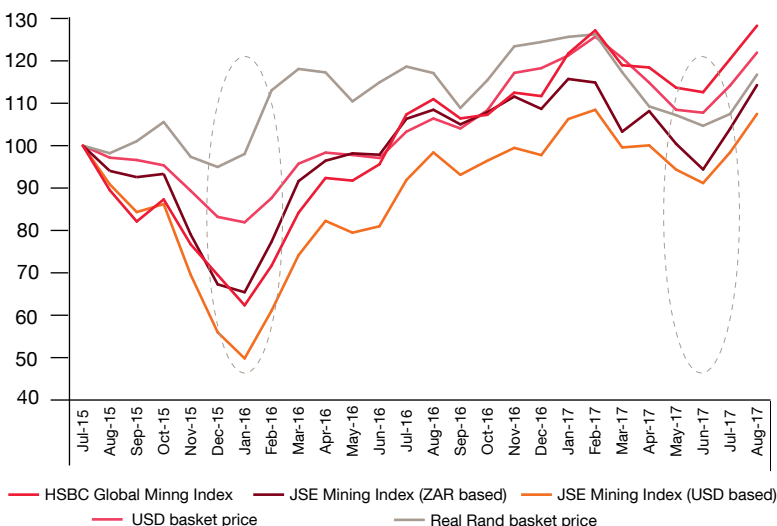


June 2015 = 100

Source: IRESS, World Bank and PwC analysis

Comparing the JSE Mining Index against the HSBC Global Mining index provides an indication of the international perception of our mining industry compared to the global mining industry. Although direct comparisons are not perfect due to difference in commodity baskets, there are obvious points to note.

Fig 4: JSE Mining Index vs HSBC Global Mining Index, June 2003-August 2017 (Average)

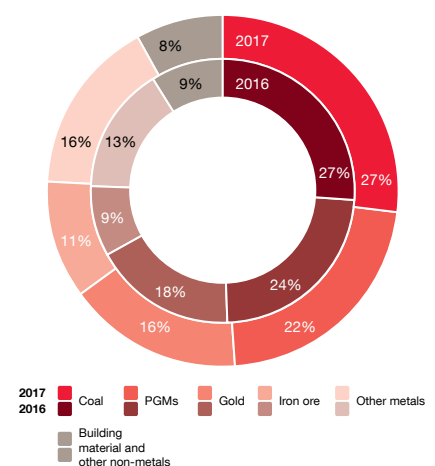


Source: IRESS, Bloomberg, World Bank and PwC analysis

The 19% gap that opened up between the two indices in December 2015 steadily decreased to less than 10% in October 2016. Unfortunately, the political uncertainty that eventually led to the credit downgrade and the mistrust between the industry and the Minister reached a high point with the publication of the new Mining Charter in June 2017. This saw the gap open again to 18%.

Contribution by commodity

Fig 5: Percentage mining revenue per commodity, 2017 vs 2016



Source: Stats SA

Coal maintained its strong position as the leading South African mining commodity revenue generator. Despite its percentage of revenue generated remaining unchanged at 27%, it increased total revenue to R119 billion from the prior year's R105 billion. The increase was mainly price driven as production remained largely flat.

PGMs' share of total revenue decreased to 22% from 24% as total PGM revenue decreased by R2 billion to R94 billion. The decrease was a result of a 4% decrease in production, which more than offset the marginal increase in the rand basket price achieved.

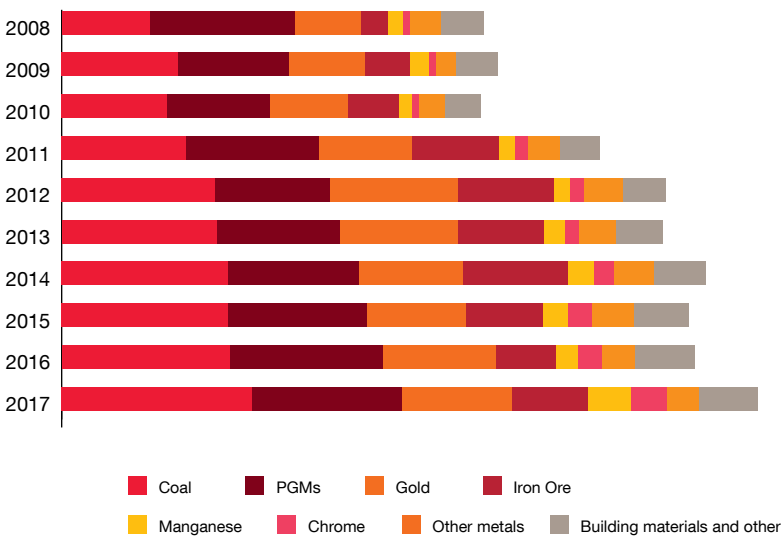
Gold's share of mining revenue decreased to 16% from the 18% in 2016. The decrease in total revenue of R2 billion to R69 billion was mainly as a result of lower production.

Iron ore's share increased to 11% from 9% due to a R10 billion increase in revenue. The increase was mainly as a result of the substantial increase in iron ore prices, which also resulted in an increase in production.

The increase in other metals was driven by the excellent growth in manganese and chrome prices, which also incentivised higher production. As a result of South Africa's dominant position in the global supply of chrome and manganese, we'll be tracking the progress of these two commodities closely in the future.

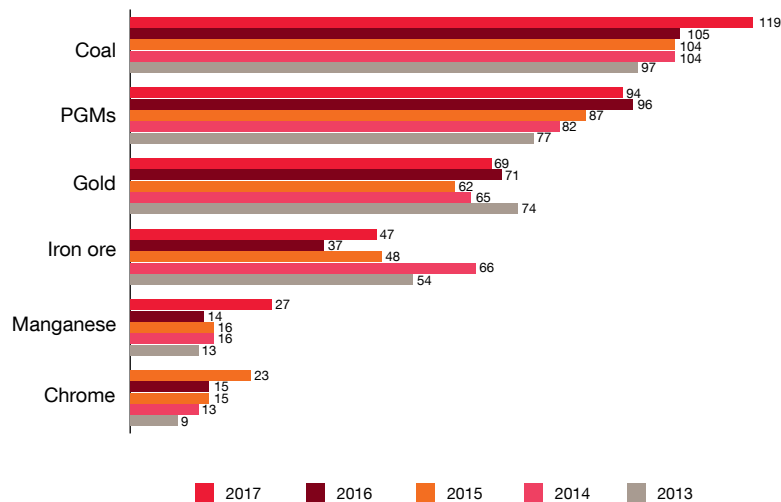
We've also added building materials to the revenue graph. Although building materials hasn't showed impressive growth over recent years, it is an important indicator of local infrastructure investment. It also deserves attention after the final acquisition by Afrimat of Infradors minorities in the prior year and the ongoing investment by construction companies, notably Raubex, in building material mines.

Fig 6: Annual mining revenue per commodity (R' billions)



Source: Stats SA

Fig 7: Annual revenue per commodity (R' billions)



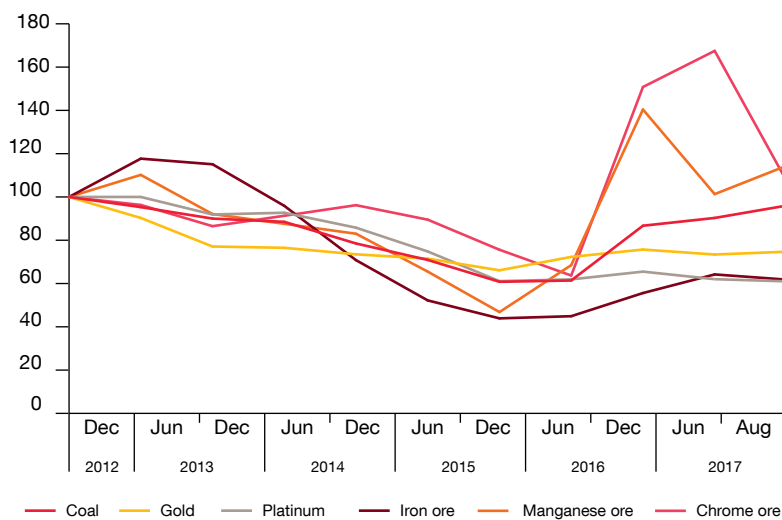
Source: Stats SA

Commodity prices continued their USD price increases from the lows of January 2016. Impressive growth was experienced in coal, iron ore, manganese and chrome, with the latter two reaching impressive price levels in December 2016 before prices eased back.

Chrome and manganese prices recovered in the second quarter of last year when producers were unable to meet demand from China. The main reasons were production cuts, the Chinese Government’s stimulus package and logistical and infrastructural challenges. The increase in demand from China was due to the stocks at the ports hitting a 10-year record low.

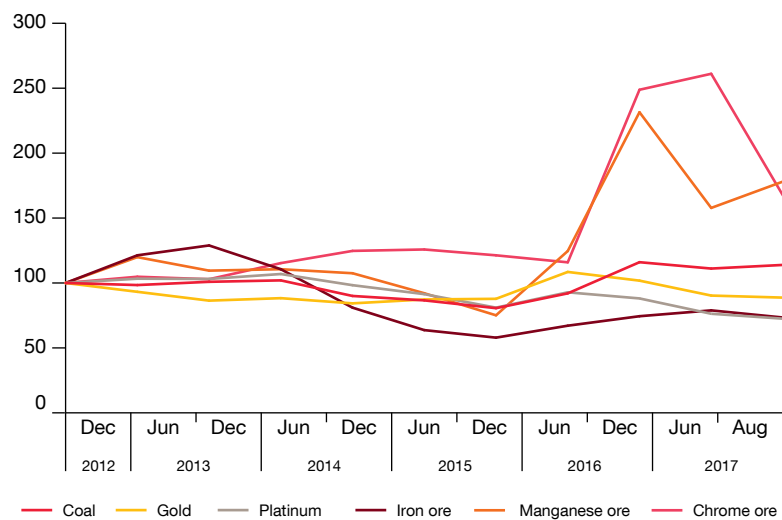
However, gold and platinum prices remained fairly stable with a marginal decrease leading up to June 2017.

Fig 8: Commodities at USD-indexed prices



December 2012 = 100
Source: World Bank, PwC analysis

Fig 9: Commodities at ZAR-indexed prices



December 2012 = 100
Source: World Bank, PwC analysis

The recovery of the rand over the same period meant that rand price increases were not as impressive and in fact resulted in further decreases for gold and platinum, putting South African deep-level gold and platinum miners under severe pressure.

Despite various cost saving initiatives, which managed to keep overall operating costs within inflation increases, lower production of gold and platinum means higher unit costs. This translates into lower or negative profit margins in flat or decreasing rand price environment, which threatens the sustainability of a number of mines.

The low price environment has resulted in the restructuring and closure of the Maseve platinum mine and the Bokoni platinum mine, followed by various announcements by platinum and gold miners regarding potential further mine closures and retrenchments.

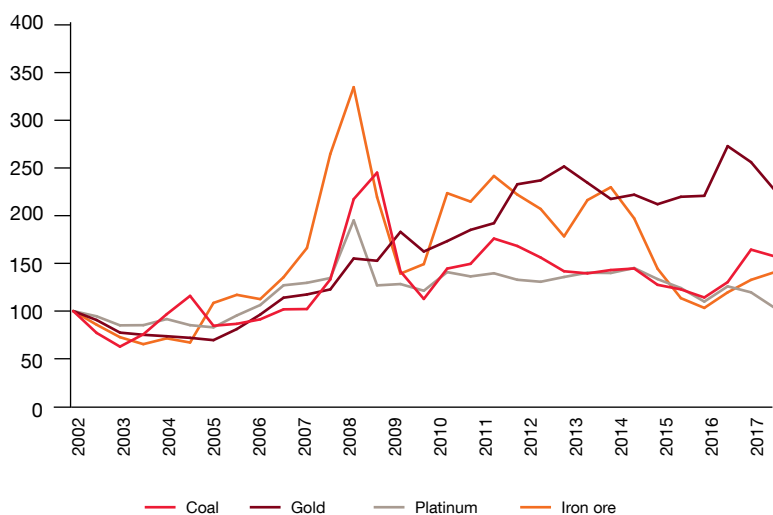
Figure 10 shows the real-rand price levels per commodity for South Africa's main revenue-generating commodities. Rand prices were adjusted by applying standard consumer price index increases for the last 15 years.

The CPI-adjusted real price of gold for the last 10 years has been on an upward trajectory since the bottom of the cycle in 2003. This was aided by the 2008 financial crisis and subsequent global political uncertainty.

Judging by the CPI-adjusted real prices for the last 15 years, one would have expected the mining industry to have been performing relatively well, as all these prices are above 2006 price levels. The reality is that mining input costs increased significantly more than the CPI.

We've calculated mining cost inflation for a basket of inputs and compared that to CPI in figure 11.

Fig 10: Indexed CPI-adjusted real-rand prices per commodity, June 2002-June 2017

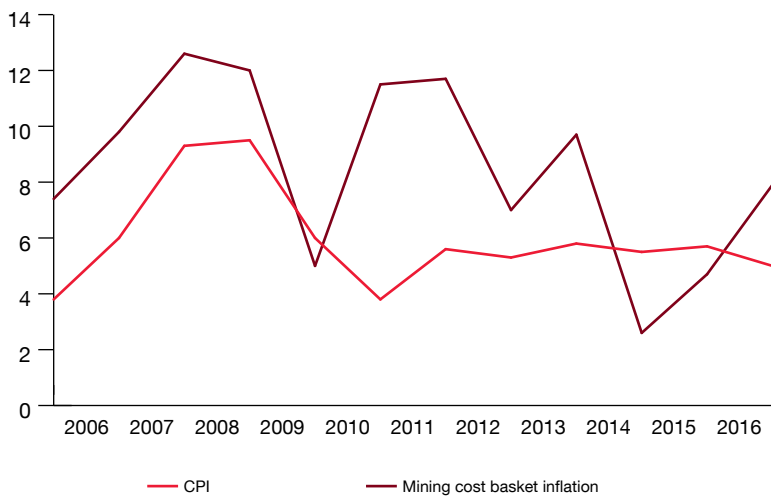


June 2002 = 100

Source: World Bank, Stats SA, PwC analysis



Fig 11: Indicative mining inflation vs CPI



Source: Stats SA, PwC analysis

Figure 11 uses weighted cost increases over the last 15 years based on a breakdown of operating expenses for 2017, as shown in Figure 26.

The following were used as a basis for the increases:

- Employee benefits and contractors: PwC Remchannel annual unionised staff increases (Note that this is based on base salary and does not take into account production bonuses and other benefits, which can be significant.)
- Consumables and mining supplies
- CPI, steel price PPI, diesel PPI and chemicals PPI
- Utilities: Electricity and water PPI
- Transportation costs: Diesel PPI and electricity PPI
- Royalties: PwC's SA Mine analysis

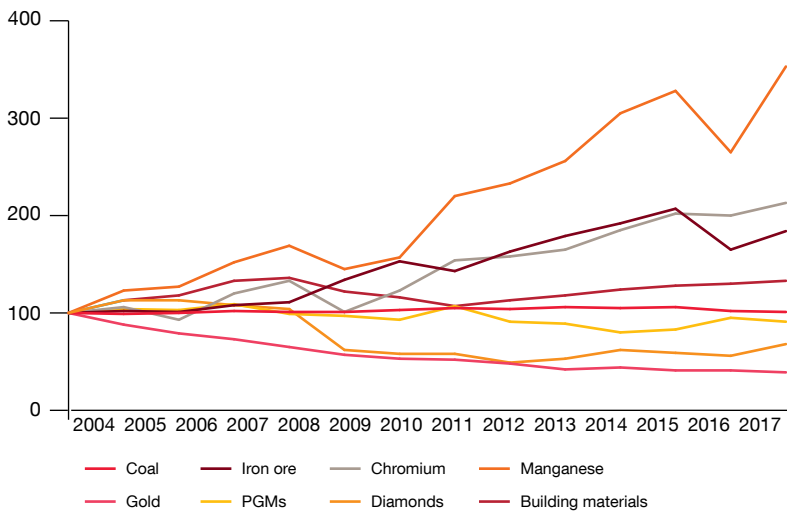
Exploration and other costs were excluded.

It is these cost increases that have put the mining industry under significant pressure. Although price 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.



Production

Fig 12: Indexed annual production per commodity, June 2004-June 2017



2004=100

Source: Stats SA

Manganese, iron ore and chrome are the only commodities that showed real production growth over the last 10 years. Timely mine and transport infrastructure development allowed production growth to happen in order to benefit from the higher iron ore, manganese and chrome prices during the recent commodity price boom.

As South Africa plays a leading role in the supply of manganese and chrome, the freeing up of mining rights post the MPRDA has resulted in significant additional investments in chrome and manganese mines.

The new supply has at times resulted in an oversupply and pressure on prices. Lower prices, notably at the beginning of 2016, resulted in various cutbacks in production which was then only reversed once prices showed some strength at the end of the year.

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 more lucrative Merensky Reef is mined out in some mines.

We've added building materials to the production graph as we don't believe it gets sufficient attention as a contributor to small-scale mining and the infrastructure development that our country needs. In the last six years the sector grew at an effective rate of 3.6% per year. Although this is still small, it has outperformed a number of our traditional mining commodities.

Coal production showed a marginal decrease from the prior year and continues its relative consistent production.

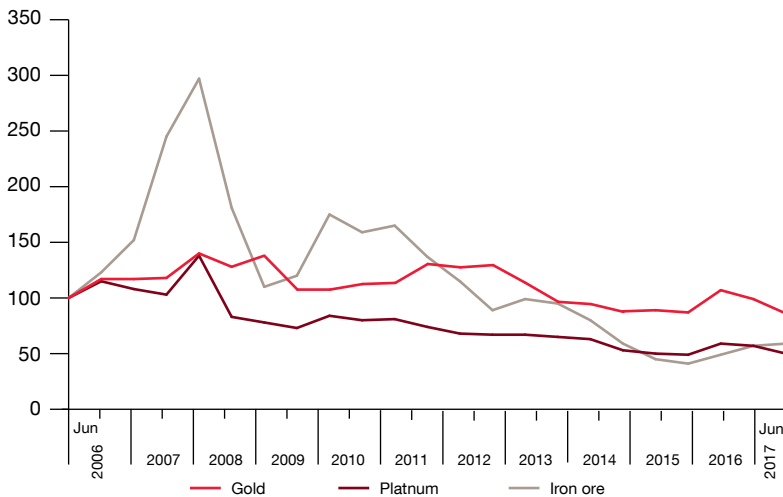
Gold continues its long-term decline. The lower rand price is likely to accelerate the decline unless technological solutions can improve the productivity of extreme deep-level mining.

The ongoing low-price environment for platinum is likely to result in further curtailment of supply in the absence of a reasonable price increase.

Diamond production showed a promising recovery on the back of big investments by De Beers at Venetia and Petra Diamonds at various operations. The trend is likely to continue into next year.

Lower production without changing cost structure results in higher unit cost increases. When one assesses real prices using unit cost increases for the various commodities, the unsustainability of low prices becomes evident, with all commodities trading well below the average of the last 10 years.

Fig 13: Indexed unit-cost-adjusted real prices



June 2006 = 100

Source: Stats SA, PwC analysis

Mining companies' response to lower prices is to reduce costs by revisiting supply agreements, rationalisations, cutting back on any discretionary expenditure like exploration and closing unprofitable operations. There seems to be reasonable success in this regard by most of the large players.



3

Integrating risks into business strategy



Identification of risk and the management thereof is an important role of management in a company. On a yearly basis listed companies will use their integrated report to communicate to stakeholders the risks they have identified to the business and the management thereof.

In the last number of years we have not seen a significant change in the risks identified by mining companies, being broadly:

- Volatile commodity prices and foreign exchange fluctuations;
- The regulatory, political and legal environment;
- Socio economic environment around mines;
- Sustainable business plans or budgets;
- Labour relations;
- Operating costs;
- Reliance on third-party infrastructure: Water supply and power security
- Employee safety and health;
- Liquidity and capital management; and
- Compliance with environmental standards.

In 2017, the risks have remained relatively consistent with three companies also including cybersecurity and its consequences as a risk.

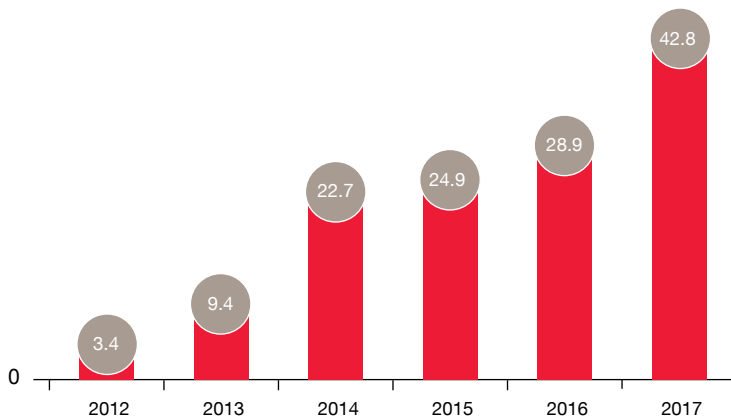




Cybersecurity

It is not surprising to see cybersecurity being recognised as a risk. PwC’s *Global state of the information security survey* data shows that the compound annual growth rate (CAGR) of detected security incidents has increased 66% year on year across all industries since 2012.¹

Fig 14: Cybersecurity incidents detected across all industries, 2012-2017 (millions)

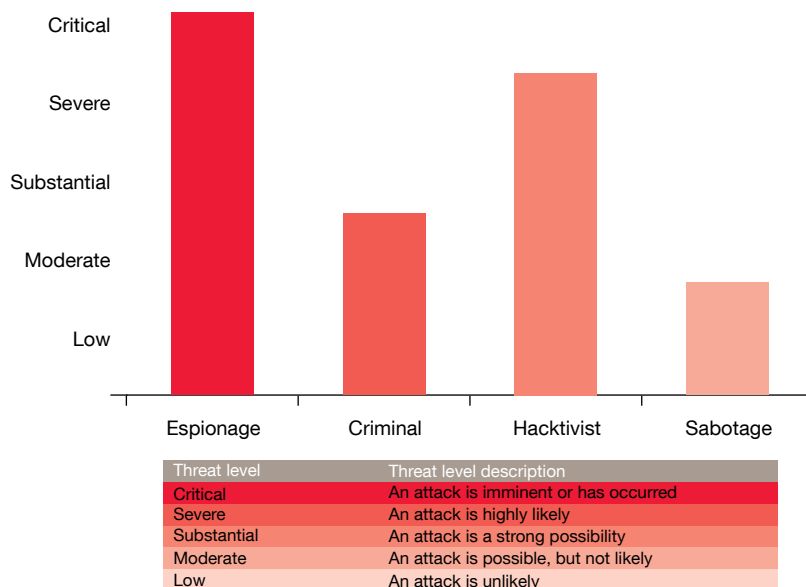


Source: PwC. The Global State of Information Security® Survey 2017

In the metals and mining industry worldwide the cyberattack threats identified include:

- **Espionage (spying)**—The highest cyber risk facing this sector;
- **Hacktivists**—Pose a severe risk to the sector; and
- **Sabotage**—Risk is low, but could evolve in the future.

Fig 15: Metals and mining industry recorded cyberattacks



Source: PwC. The Global State of Information Security® Survey 2017

1 PwC. The Global State of Information Security® Survey 2017. www.pwc.com/gx/en/issues/cyber-security/information-security-survey.html

Safety

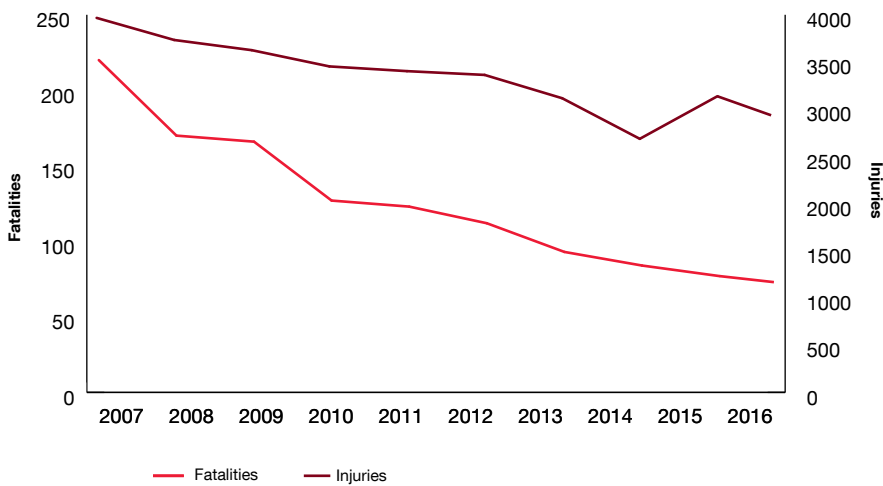
Safety remains a focus area for all mining management. This is reflected in it being recognised as a significant risk for most mining companies and the continuous detailed reporting provided by the companies.

As the safety reporting by the various entities included in our analysis doesn’t necessarily lend itself to aggregation, we’ve excluded a separate safety section from this year’s publication.

Safety is probably one of the biggest success stories for the mining industry over the last 20 years. In a country where the general safety culture is very weak, as for example reflected in road deaths, the mining industry has done extremely well to reduce fatalities from above a 1 000 a year less than 20 years ago to the current levels in the 70s. That said, everyone is in agreement that one fatality is one too many. Mining companies are investing in equipment, training and cultural changes to improve their safety outcomes.

Statistics provided by the DMR show a downward trend in fatalities for the industry as a whole over the past 10 years, indicating that investments made in safety initiatives by both companies and the DMR are delivering positive results.

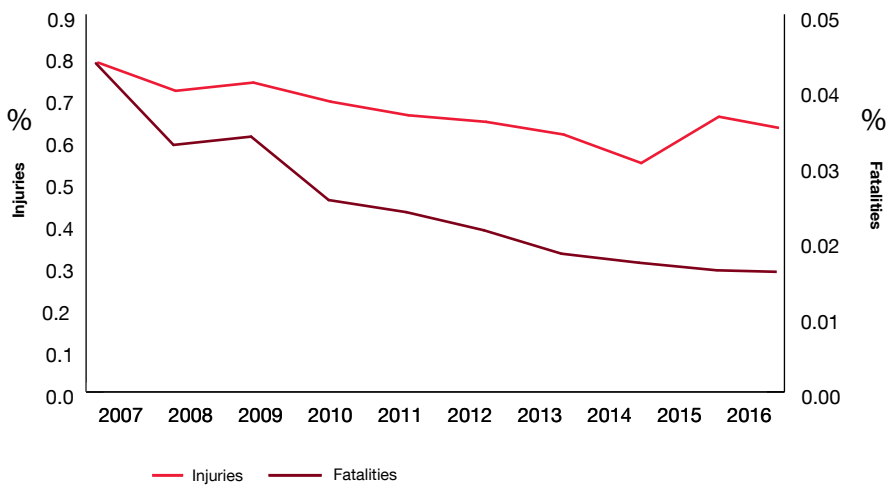
Fig 16: 10-year calendar-year safety statistics



Source: DMR

Various market commentators have pointed out that lower levels of employment positively impact safety statistics. Taking fatalities and injuries as a percentage of the number of people employed in the mining sector, then the recent improvement in fatalities is marginal with injuries remaining relative flat over the last few years (except for the 2014 platinum strike which impacted the statistics). Figures 17 does not reflect the more preferred statistics per man hours worked, which would have reduced the strike-affected impact of 2014 on the statistics.

Fig 17: Safety statistics per number of employees

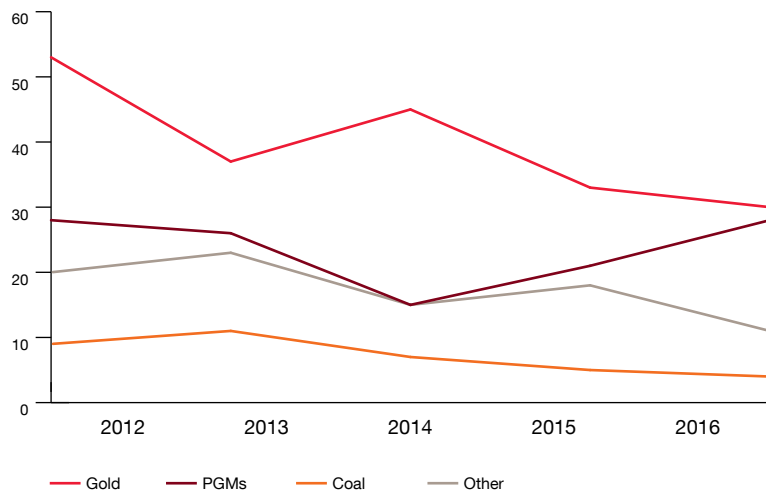


Source: DMR, Stats SA and PwC analysis



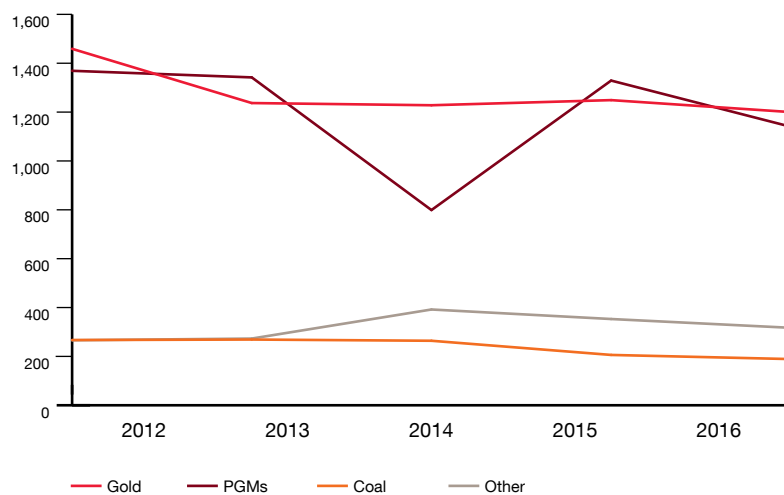
Analysing the statistics per commodity provides the following breakdown.

Fig 18: Fatalities per commodity



Source: DMR

Fig 19: Injuries per commodity



Source: DMR

Other than perhaps for platinum that had an unfortunate year in 2016, other commodities are generally following an improvement trend.

In the first half of the 2017 calendar year there have been 38 fatalities—gold: 15, PGMs: 14, coal: 4 and other: 5.

The focus on mine safety has become a high-profile public concern. This was demonstrated most recently by the extensive media coverage of the deaths of five miners following a seismic event at the Kusasaletu mine in Carletonville in August 2017, and coverage of other fatalities that have occurred over the last number of years.

Safety will remain a priority of mining companies, unions and the DMR.



4

Improving value to stakeholders



The mining industry adds significant value to our country and its people. The stakeholders in the mining industry include employees and their families, the unions representing them, the government, shareholders, suppliers and customers.

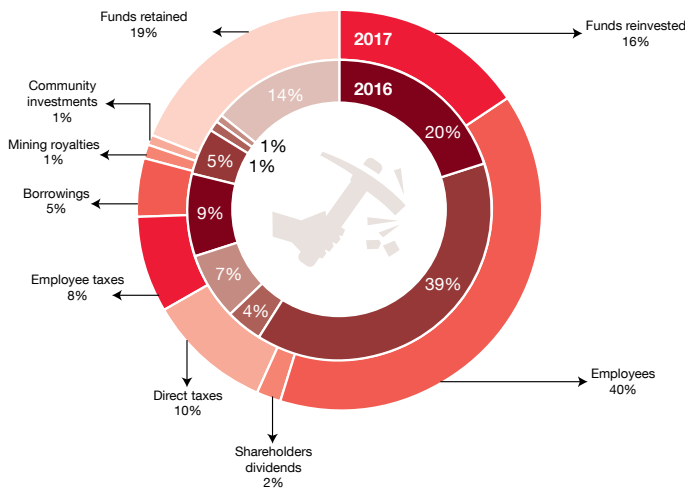
The monetary benefit received by each of these stakeholders is often summarised by companies in their value-added statements.

Almost 38% of the companies included in our 2017 analysis had readily-available value-added statements—these companies represent 88% of revenue for all companies analysed.

Although we could not ensure consistency in disclosures in all cases, we made certain adjustments based on information shared in annual reports (e.g. employee taxes) to ensure a level of consistency.

The accompanying table and graph show how the value created, being the difference between income and direct purchases, was distributed to the various stakeholders.

Fig 20: Value distributed



Source: PwC analysis





Value distributed

	2017	2016	2015*	2014	2013	2012	2011	2010
Funds reinvested	16%	20%	36%	33%	41%	27%	32%	43%
Employees	40%	39%	37%	37%	38%	27%	30%	36%
Shareholder dividends	2%	4%	9%	11%	19%	20%	11%	12%
Direct taxes	10%	7%	9%	9%	10%	10%	11%	9%
Employee taxes	8%	9%	8%	7%	7%	6%	6%	6%
Borrowings	5%	5%	5%	4%	4%	3%	1%	1%
Mining royalties	1%	1%	2%	4%	3%	2%	3%	5%
Community investments	1%	1%	1%	1%	1%	1%	0%	0%
Funds (utilised) retained	19%	14%	-7%	-6%	-23%	4%	6%	-12%
Total value created	100%	100%	100%	100%	100%	100%	100%	100%

* Comparative figures were taken from our previous SA Mine publication to illustrate the cycle impact

Source: PwC analysis

Total value created by the entities analysed increased by 12%, from R161 billion to R180 billion. The increase is largely attributed to improving commodity prices and a significant cost focus, which had a direct impact on revenue received and profitability. Sibanye's revenue increased mainly for two reasons: the significant amount of the first-time platinum revenue following the acquisitions that were made in the 2016 financial year and the 21% increase in the average rand gold price from 2015.

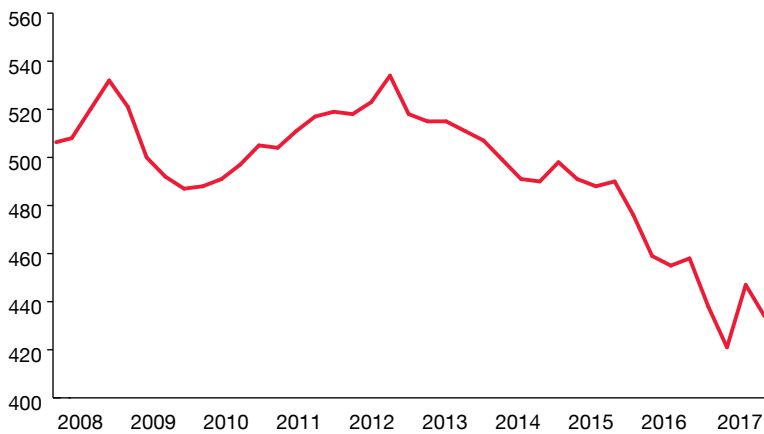
Funds reinvested in the form of capital additions and acquisitions is 16% of total value created (2016: 20%), which is significantly lower than previous years. In a low commodity price environment, companies cut back their capital spending and are focusing more on managing their working capital and reducing debt. While cash preservation strategies have effectively been maintained, the significant reduction in capital expenditure will inevitably slow down future growth.

Companies continue to feel the burden of high labour costs, adding pressure on margins. This, despite a reduction in the number of employees. The value received by employees represented 40% of total value created (2016: 39%). A number of mining companies announced retrenchments in 2017, a sign of the difficulties that the industry is facing (Fig 21).

The industry contributed about 5.1 % to the country's GDP compared to the previous two years of 5.4% and 6%. Production volumes and salaries in the industry have not moved in the same direction.



Fig 21: Directly employed mining employees (thousands)



Source: Stats SA

Shareholder dividends represents 2% of total value created (2016: 4%). This is a decrease from prior years, as companies follow through on their cash preservation strategies in reaction to lower commodity prices.

The state received 19% (2016: 17%) of total value created, which consists of direct taxes, employee taxes and mining royalties.

Funds reinvested declined as companies had to cut back on capital investment in the tough trading environment.

The challenge currently faced is determining how to increase the size of the pie to create more value for all stakeholders in an environment of ever-increasing costs, reducing margins and increased volatility.

Creating an environment with adequate infrastructure, less policy and regulatory uncertainty, and a skilled, yet flexible workforce should go a long way towards attracting investment and benefiting all stakeholders.

New Mining Charter: Consideration of current compliance

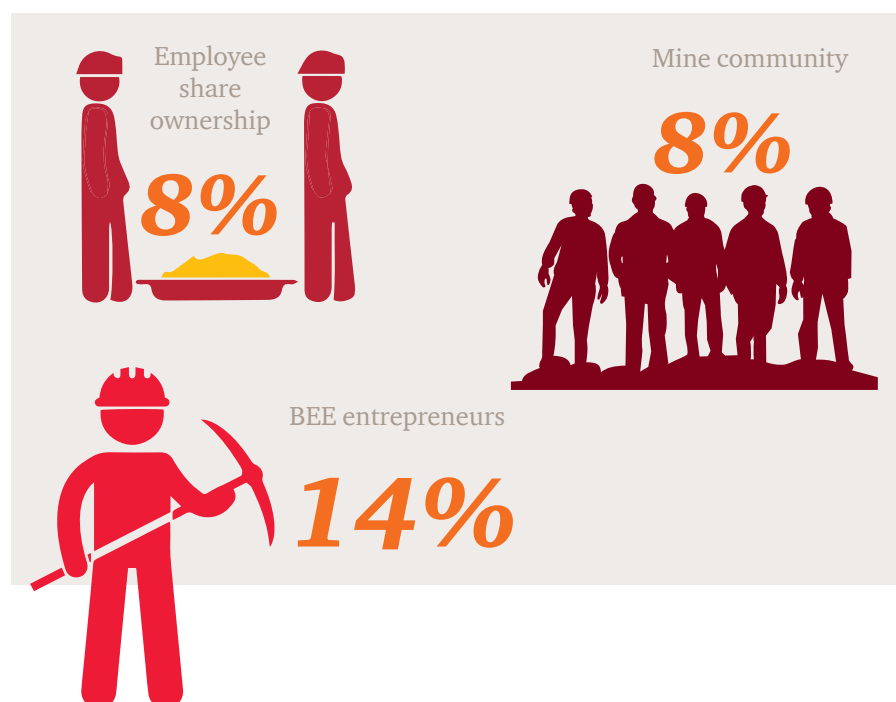
On 15 June 2017 the Minister of Mineral Resources, Mosebenzi Zwane, rocked the South African mining industry by launching the third revision of the Mining Charter with implementation effective from the date of announcement. After the announcement, mining share prices went down and the Chamber of Mines reacted with an urgent interdict on its implementation on the grounds that there had been a lack of consultation.

The Minister has since suspended the implementation of the new Mining Charter, initially pending the case in September 2017 and subsequently till the case is heard in December 2017 by a full bench of judges in the High Court.

The media widely published comments on the legality of the new Mining Charter, differences between the new Mining Charter and the previous Charter and the potential existence or not of political motives for publishing the revision. We don't intend to repeat the content of the charter or the commentary thereon. Although there are different views on the practicality of implementation and the final requirements of the new Mining Charter, this article aims to evaluate current levels of compliance with the proposed requirements using publicly-available information.

The charter is broken down in the following six elements: Ownership, employment equity, procurement, beneficiation, housing and living conditions, and human resources development. We could only find publically-available information on two: Ownership and employment equity.

Black ownership per the new Charter is set at 30% and split into three categories:



Using the shareholder information provided for the listed holding companies in their financial statements, only five (Exxaro, ARM, Wescoal, Royal Bafokeng Platinum and Atlatsa) of the 29 companies analysed had black ownership equal to, or greater than 30% combined. When splitting the analysis to the three categories listed above, none of the companies met the ownership requirements for all three individually.

As most companies do not give a breakdown in their consolidated financial statements of the shareholding at subsidiary level, it is difficult to assess compliance at that level. We can only state that the BEE shareholding per mining right is significantly higher than the group percentage as a large number of BEE transactions happened at subsidiary level. From the financial statements analysed and from those companies that commented on subsidiary ownership transformation, an additional three companies would meet the employee share ownership requirement.

In addition to complying with the set BEE ownership criteria, the new Mining Charter requires a further 1% of revenue be paid over to BEE shareholders subject only to the Companies Act's solvency and liquidity requirements. This will add to the cash flow constraints already being experienced by a number of entities in the sector.

In the view of the Department of Mineral Resources, the Government Pension Fund and the Public Investment Corporation (PIC) are specifically excluded from BEE shareholding. Twelve companies disclose them as significant shareholders. These entities, along with other pension funds share in the shareholder benefits of the mining industry for the people of the country. Their combined investment in the industry is substantial.

The previous Mining Charter required a minimum of 40% board representation by historically disadvantaged South Africans (HDSAs). The new Mining charter requires a minimum of 50% black board representation, 25% of which must be by black females.

HDSA's made up 43% of board members last year. This year, black people make up 39%. The previous Mining Charter required 10% female representation, which is changed to black female representation at 25%.

Currently, the average female representation of 18% is behind the target of 25%, yet compares favourably with the global percentage of 16%. The representation of black females is 13%. This means that mining companies are way below the target.

Five companies meet the board requirement of the new Mining Charter: Kumba, Merafe, Wesizwe, Wescoal and Atlatsa. Of the 29 companies analysed, only 19 disclose their executive management, of which only 3 meet the target for executive/top management of 50% black persons, 25% of which should be black females. Although the new Charter refers to executive management, it sets the criteria for executive directors, in which case none of the companies would comply.

Other Mining Charter 3 requirements were not disclosed in a measurable fashion by the companies analysed. However, the accompanying table illustrates which companies made some disclosure on how they address the specific areas.

Disclosure of new Mining Charter requirements

Mining Charter criteria	Number of companies that provided some disclosure on the criteria	Percentage of mining companies that provided some disclosure on the criteria.
Procurement	12	41%
Human resource development	13	45%
Beneficiation	2	7%
Housing and living conditions	5	17%

It is important that industry and the Minister adequately address concerns around the Charter and come to a workable solution that will support the long-term sustainability of the industry while also addressing transformation objectives. The South African mining industry cannot afford the current uncertainty.

Merits of the 'once empowered, always empowered' principle

The 2015 court process entered into by the Chamber of Mines and the Department of Mineral Resources (DMR) to clarify the 'once empowered, always empowered' (OEAE) principle highlighted the difference in interpretation of the value of the principle.

Rather than evaluating the real merits of OEAE, the process was perceived by many as an attempt by industry not to transform. This was apparent in the release of the Mineral and Petroleum Resources Bill, published in 2016 and the new Mining Charter, published in 2017, both of which specifically rejects the OEAE principle.

The new Mining Charter is also more prescriptive in terms of the ownership categories and specifically limits the ability of a BEE investors to realise their interest in a mining company.

Proponents of disallowing the OEAE principle believe that it will:

- Prevent beneficiaries from immediately realising their value received in the interest of short-term gain but missing out on long term-value; and
- Offer BEE shareholders the ongoing benefit (in the form of dividends) of the specific mining operation.

Proponents of OEAE believe that:

- Such transactions result in real empowerment as they don't limit BEE shareholders' ability to realise their interest in pursuit of other investment opportunities inside or outside the mining sector;
- BEE interests can be converted into the shareholding at listed company level, allowing sharing in more diversified income streams and more liquidity to realise investments at market value; and
- Creating the need to always maintain a certain BEE percentage limits an entity's ability to raise capital to either fund growth of an existing project or to survive in tough times.

Value to investors in the mining sector

If OEAE is disallowed, BEE shareholders' value in investments are limited to a dividend stream over the life of the mine they are invested in. This limitation is either created through contractual limitations as we've seen under the old Charter or in terms of the charter itself, as per the new Mining Charter.

Dividend returns is only one form of return for investors in the mining sector. Generally, due to the long-term nature of mining investments, returns are more of a capital nature as mining companies need to reinvest their profits heavily in order to generate long-term sustainable mines and companies. If an investor is locked into only receiving dividends because they cannot realise their interest in the underlying asset, their returns are significantly limited. Their risk also increases as they are limited to a single or limited number of mining assets.

PwC's annual *SA mine* publication has been tracking financial performance in the SA mining context since 2008. The table on page 23 reflects the distribution of value created (revenue less direct purchase of consumables) since 2010 for the entities included in *SA Mine* that disclosed value-added statements.

The high reinvestment levels required indicate the high proportion of value that's locked up in the capital value of the entity and not necessarily paid out as a dividend.

As indicated in figure 22, the average distributions to shareholders over the last 10 years as a percentage of market capitalization and total assets have merely been 3.1% and 3.4% respectively. Even at the highest level of 5.7% and 6.1%, which included the impressive Kumba Iron Ore dividends for those years, the dividend returns are low. These low yields can be earned on a risk-free basis by investing in government bonds with much higher returns.



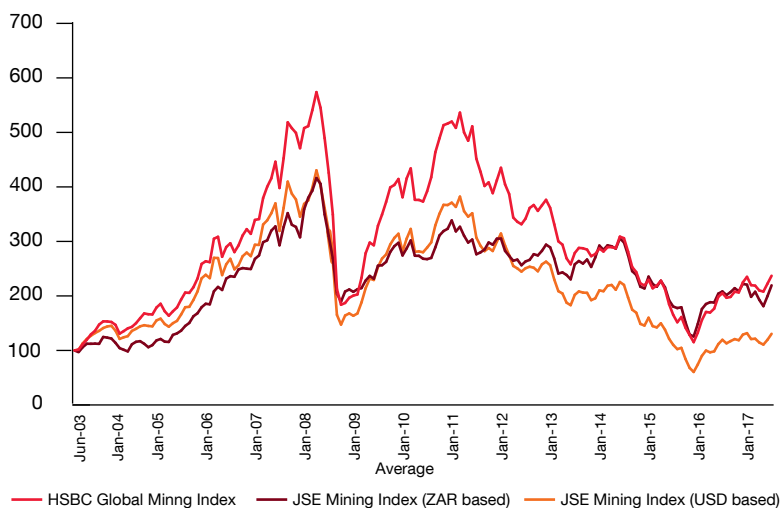
Fig 22: Dividend percentage



Source: PwC analysis

The 15-year JSE Mining and HSBC Global Mining Indices set out in figure 23 show the JSE Mining Index's exceptional growth from 2003 to 2008 with the index almost quadrupling. It lost significant value in the financial crises in 2008 but again almost doubled from the lows of 2008 by 2011. It is again approaching the low levels seen at the end of 2008, and locking in BEE shareholders now to only earn dividends will preclude them from potentially realising the capital growth upside when the long-term mining cycle return to growth.

Fig 23: JSE Mining Index vs HSBC Global Mining Index, June 2003-August 2017 (Average)



Source: IRESS and PwC analysis

Real empowerment occurred where BEE investors were able to utilise their investment capital. A good example was the Royal Bafokeng Nation, which was able to convert its investment in the Impala mines in the Rustenburg lease area to shares in the listed Implats entity.

Having a liquid well-traded investment allowed them to use the investment as collateral to fund other investments. This created a well-diversified investment portfolio across industries, thereby reducing the negative impact of the slump in the mining sector on their cash flows and income. Since 2014, they've sold off part of their investment to reduce debt and fund other investment opportunities. If the Royal Bafokeng Nation's ability to realise capital growth and the underlying investment itself was limited by not allowing them to sell their investments, they would have been locked into an investment that hasn't paid dividends for a number of years as a result of the slump in platinum prices.

Even if they were limited to only sell to other BEE parties, then the valuation they would have received for the investment would have been reduced significantly and it is unlikely that they would have been able to use the investment as collateral for the other investments made. Another example of beneficiaries realising superior returns because they could realise their investments, was the Kumba Iron Ore employee share scheme that paid out substantial amounts to employees. These amounts provided employees with the opportunity to make a substantial financial difference. However, it is also fair to note that some employees spent their returns on consumables and did not invest the funds appropriately.

We believe this discussion reflects how not allowing OEAE limits BEE shareholders' mining investment returns to a dividend stream that could be extremely volatile and risky. It largely precludes them from benefiting from capital growth when a mining company needs to reinvest funds earned for its longer-term sustainability.

Beneficiation

Beneficiation as a means to increase value from mining is often punted by stakeholders. The previous and disputed new mining charters have tried to encourage beneficiation with a reduction in BEE ownership targets if there are sufficient beneficiation activities.

In a country of high unemployment, the focus on beneficiation to extend the value chain and increase job opportunities makes sense. However, any policy attempting to encourage beneficiation needs to consider potential unintended negative consequences of that policy.

The question is: where is South Africa in the beneficiating spectrum when considering the final end product use of the commodity?

Gold is mainly used for: jewellery (43%), Investment (gold bar, gold coins) (20%), ETF investments (22%), industrial uses (electronics, dentistry, and other industrial uses) (7%) and central bank purchases 8%. Platinum is mainly used in autocatalysts (42%), jewellery (30%), industrial uses (excluding auto catalysts) (25%) and investments 3%.

Most of the gold mining companies in South Africa process the gold they have mined into doré form and then send it to Rand Refinery, based in South Africa

Rand Refinery is a smelting and gold refining company established in the 1920s. The company has been refining the country's output since inception and its shareholders are the big gold mining companies in South Africa. It refines the gold to 99.9% and sells it to bullion banks, commercial banks, national mints and other customers in different forms of bars, Krugerrands, coins, pebbles and medallions.

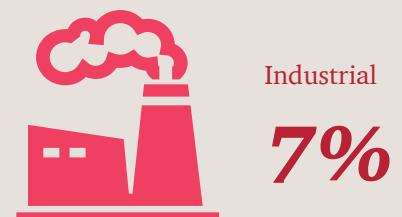
With Rand Refinery processing to 99.9% purity and selling products that go directly to end users or jewellery manufacturers, beneficiation of gold is mostly achieved. The South African Government and business have been trying to push the jewellery manufacturing industry in South Africa through programmes such as the gold loan schemes, trade agreements with other countries and initiatives to link jewellers with investors.

Anglo American Platinum and Impala Platinum Holdings are the two refiners of PGMs in South Africa. The bulk of platinum mining companies in South Africa will refine their concentrate through Implats or Amplats to a 99.9% bar or any form requested by the buyer.

The bulk of the refined product is exported to car manufacturers to use in autocatalysts, the jewellery trade and other users. Just as in the case of gold, it is evident that we are sitting on the higher side of the beneficiation spectrum with platinum. To get to 100% beneficiation, South Africa would need to grow its autocatalyst and jewellery manufacturing sectors. There is also scope for expanding hydrogen fuel cell research and manufacturing.

The thermal coal mining process is significantly different from that of gold and platinum group metals in that the majority of production comes from surface operations and there is minimal processing of the ore required once it has been extracted from the ground.

Coal is South Africa's dominant energy source, which translates into there being high local demand—61% of coal produced in South Africa is sold to Eskom, which means that 100% beneficiation of 61% of coal is achieved.



The second and third major uses of coal is exports and liquid fuel. Sasol Synfuels purchases coal from Mpumalanga mines and produces fuels from coal. Again this is a 100% beneficiation.

Steel and stainless steel manufacture are the major consumers of iron ore. Iron ore is refined in a blast furnace where the iron ore is burned with oxygen and coal to produce the metal iron. Approximately 62% of South African iron ore is exported. There is therefore huge potential for beneficiation. However, it would be challenging to say the least for South Africa to compete on the world stage in this area. China is currently the largest consumer of iron ore and also the world's largest and cheapest steel producer.

The price of steel has dropped so much in recent years that it has been difficult for local steel manufacturers to compete. In order to have a more level playing field South African steel producers have been lobbying for import levies on steel. In July 2017, South Africa produced 493 thousand tonnes of steel compared to China's production of 74 billion tonnes.

Manganese and chrome are two commodities of which South Africa has a dominant resource base and is one of the leading global suppliers. Although some chrome is smelted and sold as ferrochrome, it is fair to say that manganese is still mainly exported in ore form. The 2008 electricity supply constraints and subsequent increase in electricity costs warranted a revision of strategy for some of the role players in the industry.

Although the mining industry has made significant strides in beneficiation, the majority of constraints documented in the Department of Mineral Resources' 'A Beneficiation Strategy for the mineral industry of South Africa' report published in June 2011 are still relevant in 2017.

These include:

- Current structural arrangements of the mining industry (long-term contracts with international clients);
- Shortages of critical infrastructure such as rail, water, ports and electricity supply have a material impact on sustaining current beneficiation initiatives and pose a major threat to future prospects of growth in mineral value addition;
- Innovation is hampered by limited breakthrough research and development programmes
- Shortages of skills for local beneficiation; and
- Restricted access to international markets for beneficiated products.

Beneficiation has already added, and can add significantly more value to the South African economy. However, it is currently competing for scarce resources such as electricity and skills. Addressing these and other structural constraints is likely to have a more positive impact on beneficiation than trying to enforce it by means of legislation.



Illegal mining

The value of Illegal mining and dealing of metals and diamonds in South Africa is estimated to be more than R7 billion per year.¹ To put this in perspective, this equates to the revenue generated from approximately 430 000 ounces of gold (at the current market price).

Over the last several years news stories about illegal mining in South Africa have become more frequent. Whether it be the temporary closure of commercial mines due to the presence of illegal miners; the deaths of (or injuries to) illegal miners (often referred to as ‘zama zamas’, being the Zulu term for ‘taking a chance’) in abandoned mines; or the rescue efforts to free illegal miners who have become trapped underground, the topic has become big news and represents a significant issue upon which the government, unions, mining houses and the Chamber of Mines must act together to eradicate.

From a societal perspective, illegal mining is driven by poverty and unemployment—desperate people will take desperate measures in order to put food on the table. Furthermore, many retrenched miners have extended families that are financially dependent on them, which creates additional pressures.

A recurring theme with many illegal miners who have been arrested is that they previously worked in the formal mining sector but have been retrenched as the industry struggles with low commodity prices and other challenges.

While South Africa’s own socio-economic challenges make illegal mining a lucrative alternative, our neighbouring countries also have high levels of poverty and unemployment resulting in a further supply of workers for the illegal trade.

According to Forbes and African economic outlook, Zimbabwe has 95% unemployment, Mozambique 24.49% and Lesotho 30.63%. The Chamber of Mines reports that 70% of illegal miners arrested are undocumented foreign nationals.

It is common practice for legitimate mine workers to be paid by illegal mining syndicates to transport food and other essential items underground to enable illegal miners to work underground for long periods without having to come to the surface.

So just how serious do mining companies consider the problem of illegal mining to be? Analysis of the companies included in our study shows some key trends. Only four companies reported on the impact of illegal mining on their businesses—AngloGold Ashanti, Harmony Gold, Pan African Resources, and Sibanye-Stillwater. Gold is the primary product of all of these companies and the South African gold sector has been the most adversely impacted by illegal mining within the sector.

Gold’s high value, the large number of abandoned old gold mining areas and the relative ease of finding willing buyers has made it a commodity easily targeted for illegal mining. It should, however, also be noted that instances of illegal mining have been observed in the chrome, diamond and coal sectors.



¹ Chamber of Mines, Illegal Mining, 2017. www.chamberofmines.org.za/industry-news/publications/fact-sheets/send/3-fact-sheets/386-illegal-mining (accessed 8 August 2017).

AngloGold Ashanti reports that it was most impacted at its Obuasi mine in Ghana, which demonstrates that illegal mining is not just a South African problem. The issue was also significant enough to be disclosed as a key audit matter (KAM) in AngloGold Ashanti's annual report for the year ended 31 December 2016.

Some other specific examples of illegal mining in the news recently include:

- **Illegal mining of chrome in Limpopo province**

It is claimed there has been a lack of police intervention despite pleas from mining companies for assistance in stopping a crime syndicate believed to be responsible for illegal chrome mining activity;²

- **Illegal alluvial diamond mining in Namaqualand**

High levels of unemployment in the region have led people to mine abandoned mine sites illegally. The local police do not have the manpower to stop this dangerous practice;³ and

- **Illegal gold mining on Sibanye-Stillwater mines**

The company has declared its intention to remove all illegal miners from its mine sites by January 2018 through methods such as a tip-off system, enhanced security teams and biometric access measures.⁴

To tackle the problem of illegal mining, the Chamber of Mines (especially through its Standing Committee on Security) emphasizes the need for mining houses, the DMR and the South African Police Service to work together at every level of illegal mining activity from individuals working underground to the large syndicates that organise activity and sell the end product.



² "Gloves off in illegal chrome mining war." Fin24. www.fin24.com/Companies/Mining/gloves-off-in-illegal-chrome-mining-war-20170210 (accessed 8 August 2017).

³ "Illicit miners scrape for diamonds on abandoned mines." Al Jazeera. www.aljazeera.com/indepth/features/2017/01/illicit-miners-scrape-diamonds-abandoned-mines-170118074756756.html (accessed 8 August 2017).

⁴ "Sibanye declares war on illegal gold miners." Moneyweb. www.moneyweb.co.za/mineweb/mining-companies-investment/sibanye-declares-war-on-illegal-gold-miners/ (accessed 8 August 2017).

5

Mining in Africa – a changing landscape

DRC – Growth in the mining sector

Nigeria – Africa’s next mining territory

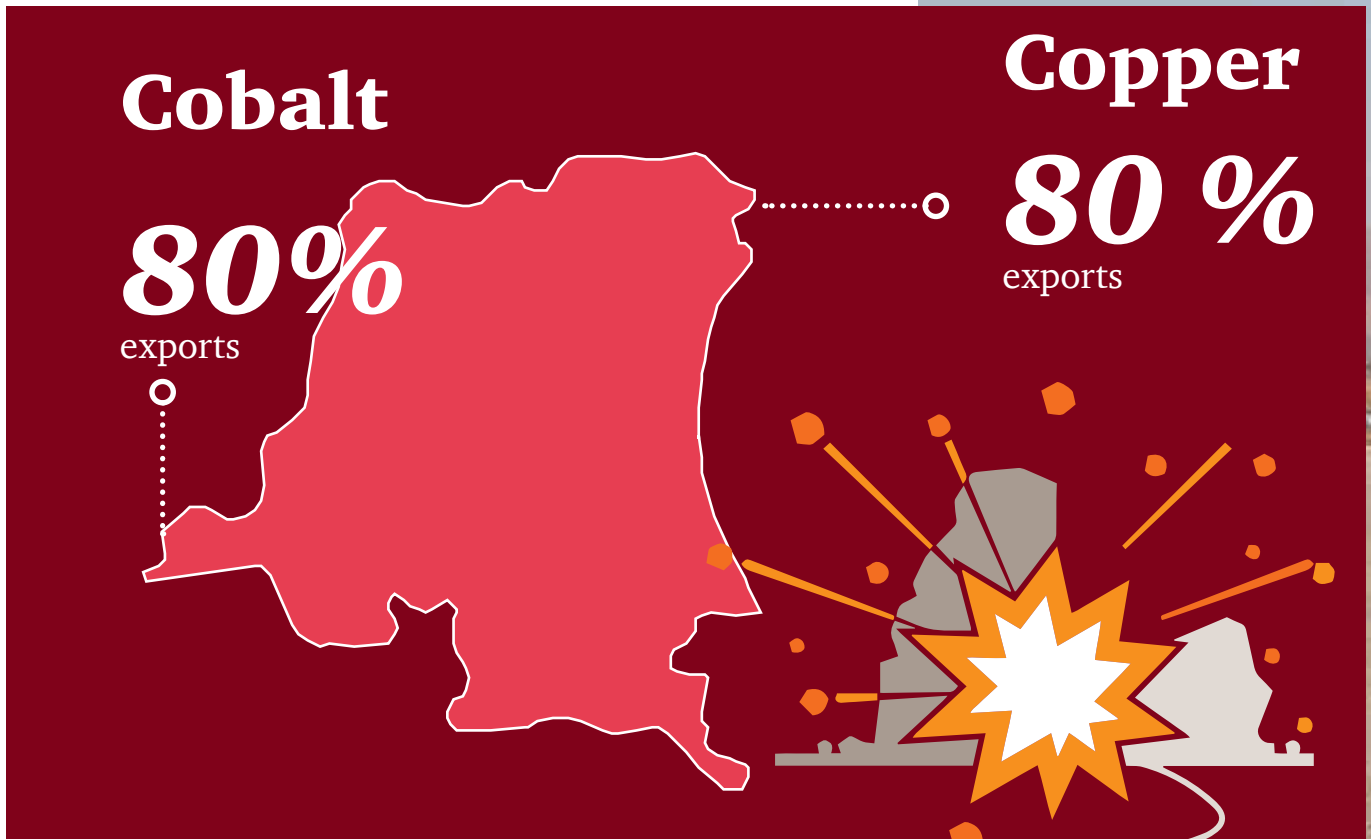
Tanzania – Regulatory changes

South Africa – Emerging technologies





DRC – growth in the mining sector



Copper and cobalt attracting growing investment

Copper and cobalt mining in the DRC takes place mainly in the copper belt of the southern former Katanga Province. Both minerals ores account for nearly 80% of the DRC's export revenue.

In 2002, with the ambition of attracting investors, the DRC promulgated the Mining Code, offering attractive tax and custom regimes. Fifteen years later, mining activities are booming.

By the end of 2016, 482 companies held mining rights versus 35 in 2002. The production of copper amounted to 1.035 billion tons at end 2016 versus 27 259 tons in 2002. Cobalt production achieved 69 038 tons at end 2016 versus 11 865 tons in 2002.



The main mining market players in the DRC are Glencore, ERG, Ivanhoe, CMOG, Tiger Resources, Trafigura/Jinchuan Group, Sicomines. Investment in the country has taken the form of acquisitions of previously state-owned mines as well as greenfields exploration successes.

The Kibali gold project that was successfully developed from an exploration success by Randgold Resources is testimony to the vast potential of a number of different commodities. Even in the well-known copper belt, the recent discovery and subsequent development of the Kamoa copper project by Ivanhoe illustrates the vast potential.

Although the country's unstable political and economic environment is a concern for all stakeholders, especially foreign investors, strong growth in copper and cobalt prices is currently attracting new foreign investors.

The DRC Government's wish is to enhance its level of control of mining industry, to increase the social and environmental responsibility of mining companies and to balance the legal, customs and tax regimes. This leads to a continuous evolution of the regulation of the DRC mining sector.

Below is an overview of the latest or significant accounting, legal and tax measures affecting the mining sector in the DRC.

OHADA membership

In 2012, the DRC joined OHADA (Organisation pour l'Harmonisation en Afrique du Droit des Affaires), the pan-African organisation for the harmonisation of business law in Africa. This membership, has provided the DRC with, among others, a modern legal framework for companies, advanced corporate governance rules, strict accounting and auditing requirements and arbitration regulations.

Accounting measures

According to the OHADA provisions, accounting of DRC companies shall be recorded in the French language and kept in Congolese francs (except mining companies, which may use any currency quoted by the Central Bank of Congo).

Accounting has to comply with SYSCOHADA standards, which are different from IFRS (a conversion is not sufficient. Accounting should be directly recorded in SYSCOHADA GAAP).

A revised uniform act relating to the harmonisation of the SYSCOHADA accounting principles was promulgated 2017 with effective application from 2018. Some dispositions (principles) in the new act have been changed to be more aligned to IFRS. These include presentation of the cash flow statement (in replacing the TAFIRE), valuation at fair value, accounting treatment of leasing contracts, employee retirement benefits and closure costs. The consolidated and combined financial statement are now prepared in accordance with IFRS..

In addition, tax laws require DRC companies to keep their accounting records in the DRC territory or face penalties and automatic taxation.

Legal measures

Besides the adherence to OHADA, the DRC has proposed substantial amendments to the Mining Code that are still being discussed within the National Assembly.

This proposed amendments include measures such as:

- The compulsory transfer of 10% of the share capital of an exploitation right to the DRC State by a rights holder, up from 5% currently;
- The disposal of mining rights will be subject to compliance with the environmental protection obligations; and
- Prohibiting the renewal of mining agreements executed without compliance to the new regulatory environment.

In July 2017, due to a lack in liquidity in foreign currency, the DRC central bank announced new penalties for mining companies failing to repatriate 40% of their revenues from mineral exports as foreseen by the Regulation of exchange introduced in 2014. These include fines of 1 % of the non-repatriated funds for each day's delay and up to USD 125 000 for failure to communicate to the central bank details of a foreign bank account.

Tax measures

In order to reduce capital flight and tax avoidance, the DRC is strengthening its transfer pricing rules, through among others The 2017 Finance Law and the draft Mining Code.

The draft revised Mining Code proposes a substantial increase in taxes and customs. It also proposes that in the event of a transfer of shares in a company holding a mining right, the realised gain be subject to 35% corporate income tax even if the seller is not established in the DRC. Currently, there is no taxation on capital gains realised by foreign shareholders on the sale of their DRC shares.

The draft revised Mining Code also provides a grandfathering clause ensuring the current tax, customs and exchange regimes remain applicable during five or ten years depending on the case (and subject to certain conditions).

Regarding the double tax treaties concluded with South Africa and Belgium, which were not in practice applied in DRC despite their entry into force in 2012 and 2011 respectively, DRC tax authorities finally enforced them at the end 2016. The main consequence of this enforcement is the exemption of the 14% corporate income tax due on services rendered by Belgian and South African providers.

Future environment

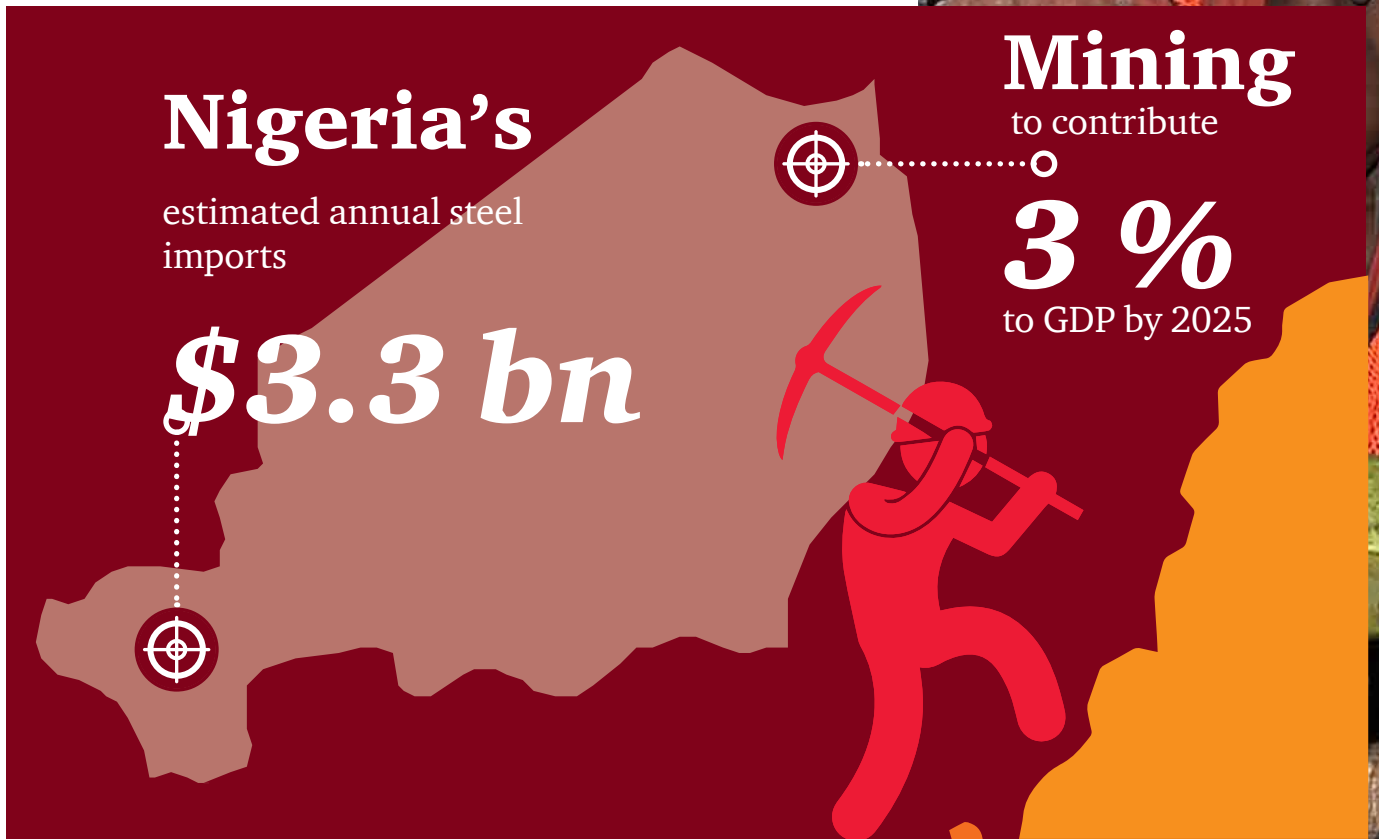
The growth in the DRC mining sector since 2002 has been facilitated by the commodities boom, attractive tax and customs incentives, greater stability and an improved regulatory environment.

Despite this growth, there is still a perception that compliance in the DRC is often more a case of negotiation than actually complying with the letter of the law.

It will be interesting to see whether the proposed changes will create more stability and certainty and whether they will allow for future growth or whether they will stifle growth to address short-term needs at the expense of long-term value.



Nigeria – Africa’s next mining territory



Seizing the opportunity.

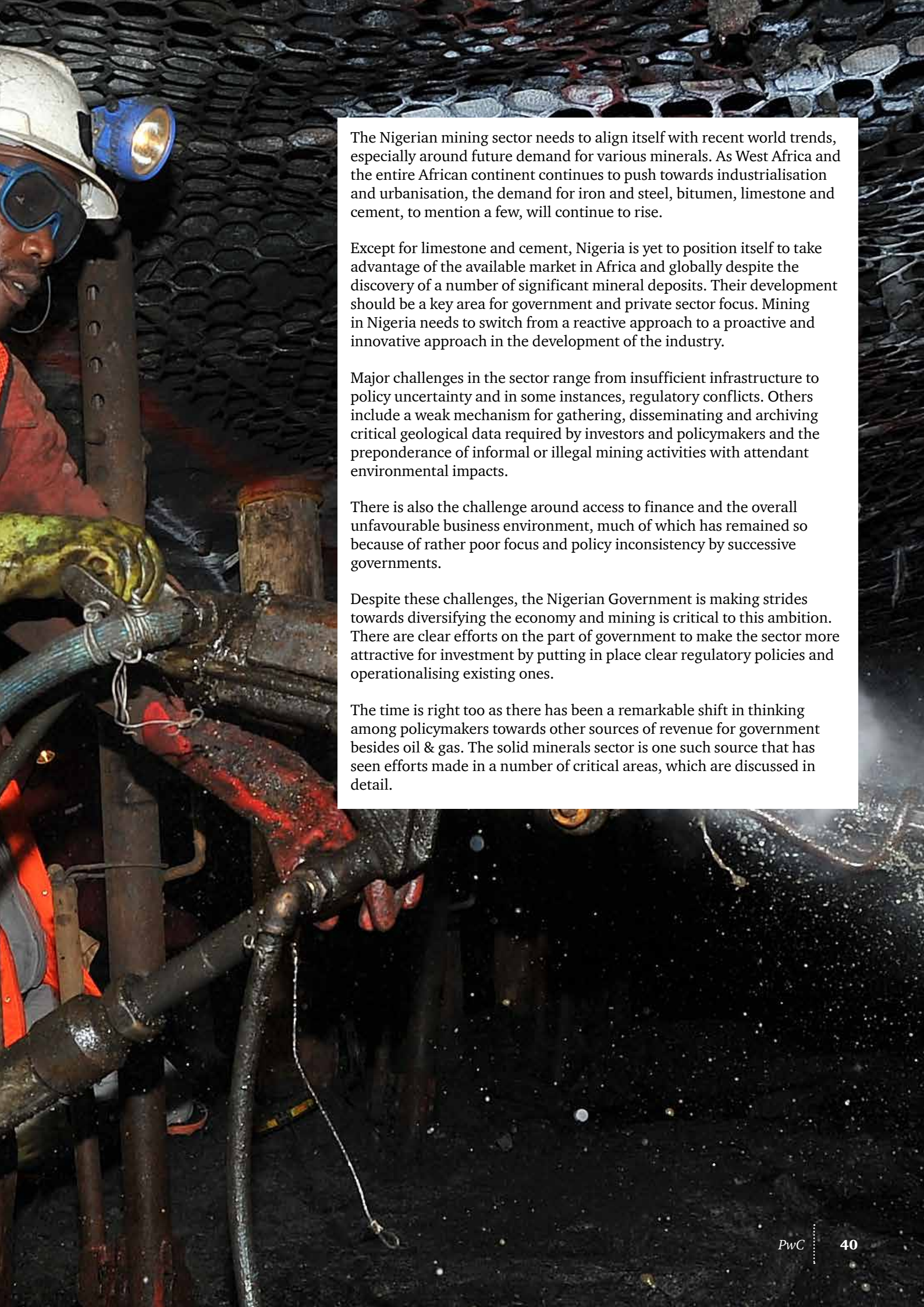
A review of key developments in Nigeria's mining and minerals sector

Nigeria may not yet readily be described as an important mining hub. In 2015, the contribution of the sector to Nigeria's GDP averaged only about 0.33%. But it has the potential to contribute much more.

Between 1960 and the 1970s, the sector contributed about 4-5% to GDP. This is a reflection of the country's rich solid mineral endowments, including high-value metallic minerals, industrial minerals, and energy minerals.

Most of these remain largely untapped. The sector is underdeveloped with a lot of the mining activity currently being done only on small scale.





The Nigerian mining sector needs to align itself with recent world trends, especially around future demand for various minerals. As West Africa and the entire African continent continues to push towards industrialisation and urbanisation, the demand for iron and steel, bitumen, limestone and cement, to mention a few, will continue to rise.

Except for limestone and cement, Nigeria is yet to position itself to take advantage of the available market in Africa and globally despite the discovery of a number of significant mineral deposits. Their development should be a key area for government and private sector focus. Mining in Nigeria needs to switch from a reactive approach to a proactive and innovative approach in the development of the industry.

Major challenges in the sector range from insufficient infrastructure to policy uncertainty and in some instances, regulatory conflicts. Others include a weak mechanism for gathering, disseminating and archiving critical geological data required by investors and policymakers and the preponderance of informal or illegal mining activities with attendant environmental impacts.

There is also the challenge around access to finance and the overall unfavourable business environment, much of which has remained so because of rather poor focus and policy inconsistency by successive governments.

Despite these challenges, the Nigerian Government is making strides towards diversifying the economy and mining is critical to this ambition. There are clear efforts on the part of government to make the sector more attractive for investment by putting in place clear regulatory policies and operationalising existing ones.

The time is right too as there has been a remarkable shift in thinking among policymakers towards other sources of revenue for government besides oil & gas. The solid minerals sector is one such source that has seen efforts made in a number of critical areas, which are discussed in detail.



Sourcing funds and attracting investment to the sector

As part of efforts to establish a stable governance and financial structure to attract more investment to the sector, the Nigerian Presidency approved the reconstitution of the Board of the Solid Minerals Development Fund (SMDF) in May 2017.

The SMDF has been established as a requirement of the Nigerian Minerals and Mining Act, 2007, and is mandated to intervene in the governance and availability of funds for the sector. Key responsibilities of the SMDF include:

- Provision of funds for geoscientific data gathering, storage and retrieval;
- Equipping mining institutions to enable them to perform their statutory functions;
- Funding for the extension services of small-scale and artisanal mining operators;
- Provision of relevant infrastructure for the mining industry.

The success of the SMDF will depend on its ability to run as a strictly private-sector driven fund not encumbered by government influence. It needs to be driven for value creation with experienced and well trained fund managers

Furthermore, the Federal Government also approved a N30bn (approximately \$100 million) Mining Intervention Fund, a significant proportion of which is to be used in geodata gathering, which has been identified as a major barrier to investment in the sector. This funding is not really sufficient for multiple data gathering projects and it might be necessary focus on a single selected mineral.

A new roadmap

Given a series of pragmatic steps taken so far by the Ministry of Mines and Steel Development to redefine the policy and regulatory framework for the sector, the Federal Government has demonstrated its commitment to doing what is necessary to develop the sector.

A significant first step was the launch in 2016 of a new roadmap for the sector that aims to achieve shared mining prosperity for all

stakeholders. Within the roadmap, the government commits to grow the contribution of mining to GDP to about 3% by 2025.

The roadmap identifies seven strategic minerals of commercial quantity to be accorded priority. These are coal, limestone, lead/zinc, bitumen, barite, gold and iron ore.

A Mining Implementation and Strategy Team (MIST) has been established to co-ordinate the implementation of the roadmap and manage its execution.

Strategic focus on bitumen and steel

While bitumen is extracted as a petroleum product in other parts of the world, in Nigeria its exploitations is under the control of the ministry of mines and steel development.

The Nigerian bitumen belt spans across Ogun, Ondo, Lagos and Edo States. Despite this endowment, about 80% of asphaltic materials used for road construction in the country is still being imported.

Critical to the development of the resource is the need for the gathering of quality data to support the current



Unfortunately, solving the menace of illegal mining in Nigeria also requires efforts by the international community to stifle illegal sale cartels, which are predominantly driven by foreign interests.

Seizing the opportunity

A comprehensive policy agenda for Nigeria's minerals and mining sector is planned to be unveiled soon and this will further set the tone for investments in the sector. There are already a number of incentives in place for players interested in investing in the sector. These include a three-year tax holiday for new mining companies, which may be extended for one further period of two years.

Mining operators are also granted exemption from payment of customs and import duties in respect of plant, machinery, equipment and accessories imported specifically and exclusively for mining operations.

Other incentives include deferred royalty payments, possible capitalisation of expenditure on exploration and surveys and extension of infrastructure such as roads and electricity to mining sites by government.

There is also provision for 100% foreign ownership of mining concerns. Nigeria needs to do a lot more in promoting the mining industry to the global audience.

With high expectations and a willingness among key stakeholders to collaborate in driving this growth, there is no better time to invest in unlocking the mining potential of Nigeria.

efforts of the Federal Government in positioning Nigeria as a major player in the regional and global bitumen market, especially for asphalt supply.

There are also ongoing efforts to revive iron and steel development in the country especially around untangling the massive Ajaokuta Steel Company built in 1979 from the various administrative and legal issues that has held it back over the years, and repositioning it to meet domestic steel needs. It is estimated that Nigeria currently spends about \$3.3 billion on steel imports every year.

Increased state government participation

We are also beginning to see better collaboration between the Federal Government and the states in the development of the sector. The payments of the 13% derivation from national solid minerals revenues to the states by the Federal Government has provided an opportunity and an incentive for states with various minerals deposits to increase their allocation from the federation.

States are also increasingly participating in mining activity by setting up special purpose vehicles, or entering into joint ventures with renowned operators to invest in the exploration of specific minerals.

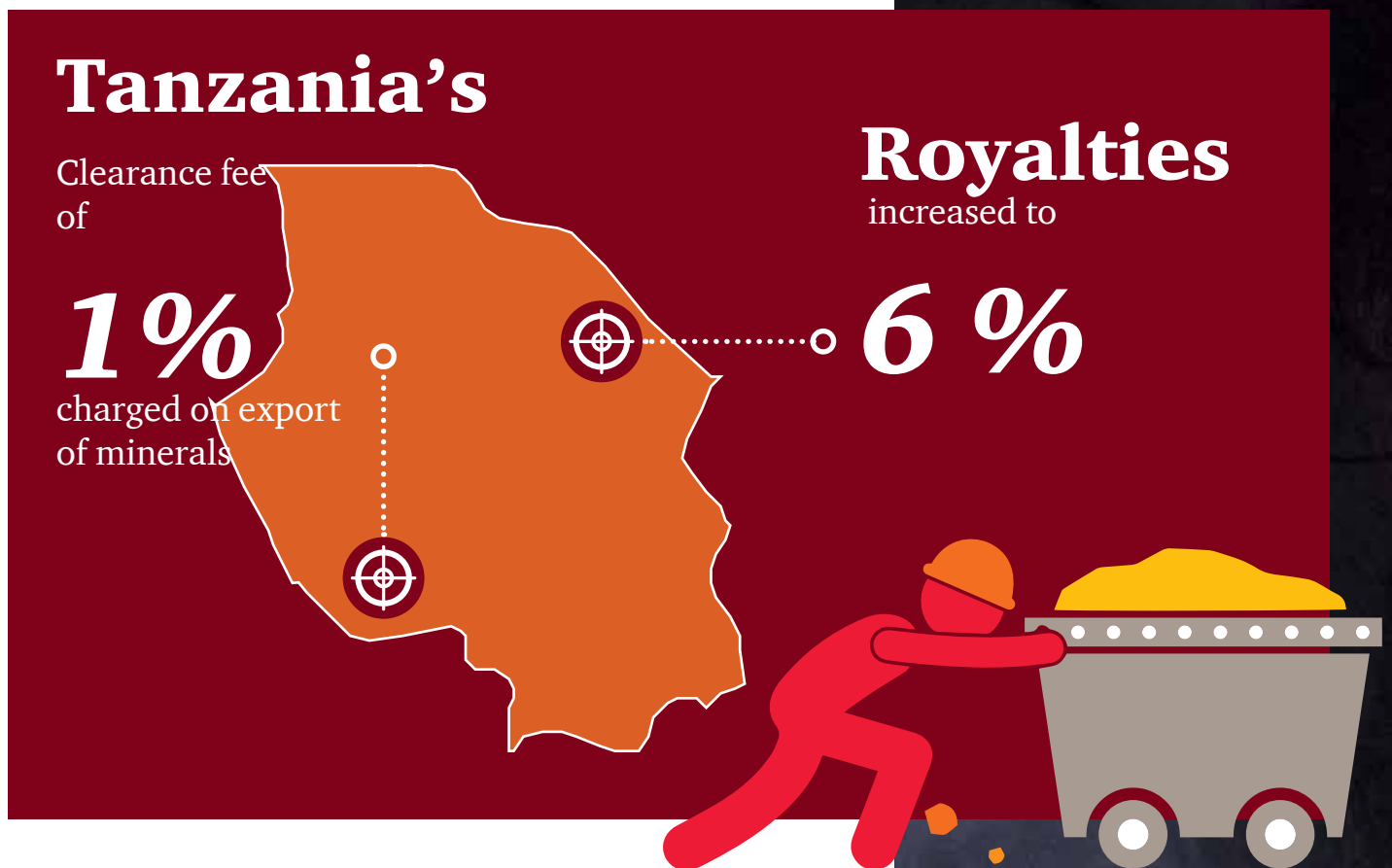
In addition to their equity investment in such projects, state governments provide an enabling environment for such investors, providing infrastructure such as access roads to mining sites and ensuring better security for mining operations.

Curbing illegal mining activities

There has also been some effort to tackle the issue of illegal mining through the establishment of the Mines Police Division as well as the emergence of the Joint Task Force on Mines surveillance, including officers of the Police and the Nigeria Security and Civil Defence Corps (NSCDC).

Working closely with the state mines offices, these bodies have been tasked with ending criminal activities in mines and ensuring safety of lives and investments, including compliance with laid down procedures and environmental standard requirements.

Tanzania introduces fundamental regulatory changes



Tanzania's mining sector continues to be the subject of unprecedented legislative change. The 2016 budget (read in June 2016) introduced fundamental changes to the income tax regime for the extractive sector. June 2017 also saw significant changes for the sector, even more fundamental than the 2016 changes. This time they were not enacted as part of the Finance Act, but rather by three pieces of legislation (separate to the Finance Bill), which were introduced to Parliament, debated and enacted as Acts within a week. The broad objective of the three Acts is to seek to obtain a higher return to Tanzania from its natural resources.



The Natural Wealth and Resources (Permanent Sovereignty) Act 2017

The Act is intended to provide “comprehensive statutory provisions to provide for ownership and control over natural wealth and resources and to provide for the protection of permanent sovereignty over natural wealth and resources.”

Key points include: a guaranteed return for Tanzania; provisions for the Government/Tanzanian citizens to obtain an ‘equitable stake’ in ventures; earnings to be held in local bank accounts; and all disputes to be settled in Tanzania, and this should be included in agreements.

The Natural Wealth and Resources Contracts (Review and Re-Negotiation of Unconscionable Terms) Act 2017

The Act intends to make “comprehensive statutory provisions that require all arrangements or agreements on natural wealth and natural resources to be tabled for review by the National Assembly for the purposes of ensuring that any unconscionable terms therein is rectified or expunged.”

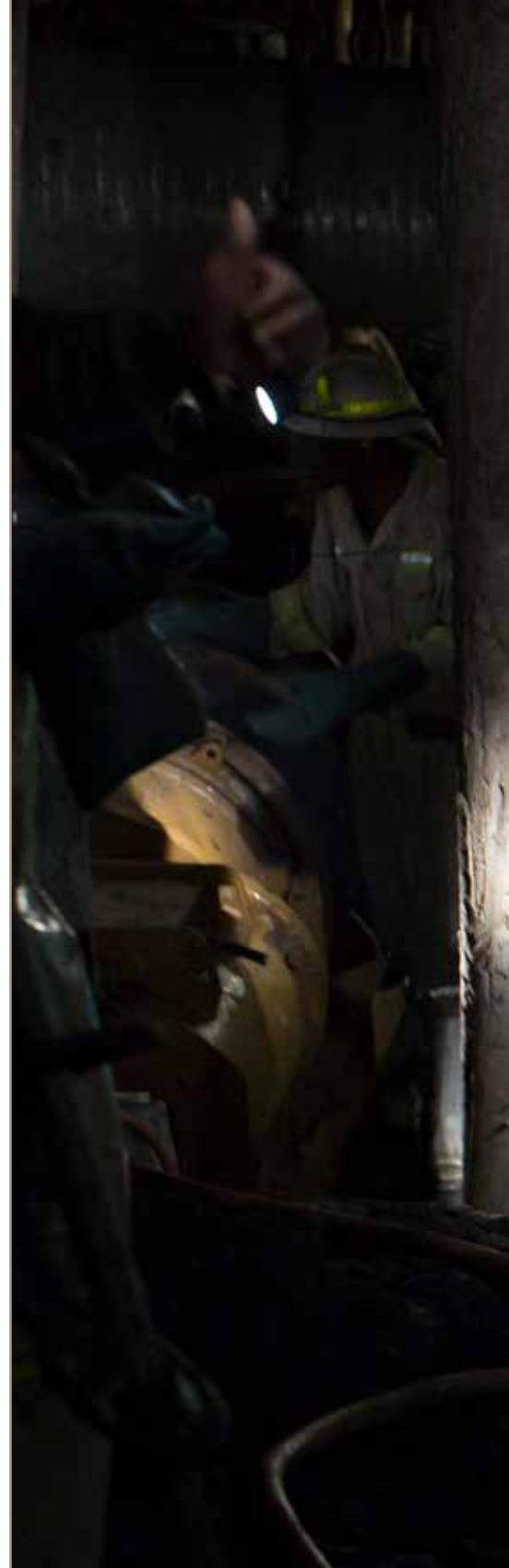
The Act empowers Parliament to review all agreements (including mining development agreements in force), and to direct the Government to renegotiate the terms with a view to removing ‘unconscionable terms’. Unconscionable terms are widely defined to cover “provisions that... are inequitable or onerous to the state” but also to include a number of specific items such as “provisions... securing preferential treatment designed to create a separate legal regime to be applied discriminatorily for the benefit of a particular investor”.

The Written Laws (Miscellaneous Amendments) Act 2017

The Act states its intention as that of “enhancing control and compliance, ensuring maximum collection of revenues and securing national interests”. This Act has brought in a number of amendments to the Mining Act 2010, Petroleum Act 2015, Income Tax Act 2004, Value Added Tax Act 2014, Tax Administration Act 2015 and the Insurance Act 2009.

Changes introduced by this Act which will affect mining projects include:

- **Free carry:** A requirement for the Government to have a minimum 16% free carry interest, which can increase to 50% depending on the tax incentives provided to the company.
- **Increased royalty rates:** Royalties on gemstones, diamonds and metallic minerals (including gold, silver, copper, and platinum) are increased to 6%. In addition, the Finance Act 2017 simultaneously introduces a new ‘clearance fee’ of 1% to be charged on the export of minerals (on the same base on which royalty is calculated).
- **Restriction on VAT input recovery:** VAT input tax credit can no longer be claimed in relation to the export of unprocessed ore. The objective here is stated to be “to [provide] incentive for local beneficiation of minerals”.
- **New local content requirements:** When purchasing goods or services, mining companies are now required to use local companies that are majority owned by Tanzanian citizens. However, where relevant goods or services are not available locally, then the minimum local interest is 25%.





The potential impact of the changes on mining investment decisions was highlighted in PwC's report titled *Two steps forward, one step back*¹, which looks at the current African tax landscape for mining. This report, launched in September 2017, follows a similar report prepared in 2015 titled *Overtaxed?*² Both reports summarise the outcomes of an economic analysis of a standard gold mine operating under the same conditions in a number of different African countries, including Tanzania.

The report highlights the adverse impact of mining tax changes introduced in Tanzania in 2016 and 2017. It is the least attractive of the countries surveyed, with the model mine having a projected internal rate of return of only 18.5% (as compared to 24.9% in 2015), and Government receiving 73% of total project profits. A key takeaway from the report is the importance of the need to strike the right balance between tax and revenue measures, while still allowing sufficient return on the capital invested by miners to allow investment to take place in the first place.

The report concludes that the challenge to both miners and governments is to work together collaboratively to understand project-specific economics in order to build a flexible arrangement to allocate returns from a project appropriately.

Given that the stated aim of Tanzania's new legislation is to ensure a fair return to the country, a starting point for this conversation could be to ensure sufficient transparency to all stakeholders (including not just Government, but also the public at large) of the economic and tax impacts of such investments, including actual/projected share of returns by the investor and Government, and the wider economy respectively. This could then ensure a discussion or debate that is driven more by light than heat!

1 PwC *Two steps forward, one step back: The African tax landscape*. 2017. www.pwc.com.au/industry/energy-utilities-mining/africa-practice/assets/african-tax-landscape-sep17.pdf

2 PwC *Over taxed? Does the tax regime encourage new mines?* 2015. www.pwc.com.au/industry/energy-utilities-mining/assets/australia-africa-practice-aug15.pdf

South African mining and the adoption of emerging technologies

South Africa's

average revenue loss per stoppage per operation is about

R13m



Almost all mining companies have safety as a first operating priority and within the low-price environment they're focusing on reducing unit costs as the second-most important priority.

Quite often safety and cost goes hand in hand as demonstrated by the impact of safety stoppages. A report by the Chamber of Mines of South Africa (CoM) estimates the application of safety stoppages in accordance with Section 54s of the Mine Health & Safety Act, 1996 (MHSA), cost the mining industry R4.84bn in lost revenue in 2015.

These losses exclude the cost of mineworkers who have to be paid while the mine sits idle, or the other costs incurred, or the cost of restarting shafts, it added. The average revenue loss per stoppage per operation is about R13m.

Modernisation in the mining industry provides obvious benefits for cost saving and safety objectives.

EXPLOSIVES



The process of mining has not changed much since inception. We continue to explore, survey, develop, drill, blast, load and haul out of opencast or underground mines; process and refine through the plant area; stockpile and transport to ports for shipping and finally rehabilitate.

Additionally, mining hardware technology solutions did not change fundamentally in the last half a century either. The key areas of development of mining machinery were focused on increasing capacity and improving fuel efficiency and reliability with hardly any major improvements to their general design. Digital transformation in recent years with application of emerging technologies is probably the first major disruptor in several decades.

Leading mining companies have advanced from basic plant automation systems and enterprise resource planning (ERP) systems, and are known to have an array of technical and other legacy systems working in silos.

Today's mining companies need to look to emerging technologies to support their digital transformation together with organisational and business model transformation to ensure:

- Removal of people from harmful conditions;
- Improved operations by utilising technology as an enabler to provide real-time intelligence, safer working conditions and advanced communities;
- Improved supervision of construction processes enabling progress monitoring and development of precise engineering-grade geospatial products;
- Employees are upskilled as part of progressive mining communities;

- New monitoring tools are provided in environmental protection applications;
- Operators are enabled to achieve mining excellence; and
- Mining sustainably.

As with all revolutions that bring about change, the technology revolution has accelerated ideas and made it easier to adopt new technology given the falling price of technology and rate of technology improvement.

Leading South African mines that have embraced the disruptor approach to mining transformation, have moved from being digital laggards to digital first movers. They have started their journey towards the digital mine of the future, which will enable the business to seamlessly integrate the virtual and physical operations.

Technology is changing how we operate in the mining industry

Using remotely-piloted as well as autonomous drones for surveying of opencast mines is a common example of adopting an emerging technology. Mines are also adopting autonomous drilling, driver fatigue monitoring, proximity devices, collision awareness systems for mine vehicles and trucks, cloud and mobility solutions.

Numerous other emerging technologies are either on the radar of mining companies or being piloted as part of their digital transformation roadmap. These include machine learning, virtual and augmented reality, artificial intelligence, smart sensors, 3D printing, robotic process automation, big data analytics (BDA), the Internet of Things (IoT) and renewable energy.

These technologies are usually driven at a line-of-business level, which does not necessarily deliver value across the business. A typical example is using drone technology at mine level for pit surveying and mine planning, but not using it more widely for security monitoring (perimeter monitoring), detection of gas emission in the pit, identification of safety transgressions using machine learning, video surveillance ensuring all personnel are evacuated from the pit during blast, or video surveillance of mass protest action outside mine entrances. Hence, drone systems can be a valuable investment to be leveraged by the mine's HSSE department as well. Often these additional non-core uses of the technology are overlooked resulting in low return on investment or duplication of effort.

Over the years very few mines have developed a data strategy and architecture that enables data sharing, master data management and systems integration. Most mines still deal with large volumes of data sitting in various disparate systems.

Instead of sharing relevant data seamlessly and creating new insights to help transform and make mining more effective, new technology adoption often just adds to the silo-based data legacy.

In contrast, when digital technologies are used in combination and form part of an integrated bigger picture, their combined effect produces far greater benefits to an organisation than when operating in isolation. Drone technology is a vital part of this shift, enabling integration of existing information with precise geospatial data, enabling, when integrated, unparalleled levels of data fusion.

Blueprint for digital transformation success

To move forward with digital transformation, digital capabilities are all important.

These take time and concentration; a step-by-step approach is important. But companies need to move with deliberate speed, so that they don't lose the first-mover advantage to competitors.

- **Map out your digital transformation strategy**

Evaluate your own digital maturity now and set clear targets for the next five years. Prioritise the measures that will bring the most value to your business and make sure these are aligned with your overall business strategy. Make sure company leadership is ready and willing to champion your approach.

- **Create pilot projects**

Use them to establish proof of concept and demonstrate business value. Target a confined scope, but highlight the end-to-end concept. Not every project will succeed, but they will all help you to work in a cross-functional and agile approach with customers and technology partners—the new norm of the future. With evidence from early successes, you can also gain buy-in from the organisation, and secure funding for a larger rollout. Design pragmatically to compensate for standards or infrastructure that don't yet exist. Collaborate with digital leaders outside your organisation, by working with start-ups, universities, or industry organisations to accelerate your digital innovation.

- **Define the capabilities you need**

Building on the lessons learned in your pilots, map out in detail what capabilities you need to achieve your vision. Include how enablers for digital transformation, such as an agile IT infrastructure, can fundamentally improve all of your business processes. Develop strategies for attracting people and improving processes as well as for implementing new technologies.

Your success with digital transformation will depend on skills and knowledge.

- **Become a virtuoso in data analytics**

Consider how you can best organise data analytics. Cross-functional expert teams are a good first step. Later, these capabilities can be fully embedded in your functional organisation. Learn to get value out of data by building direct links to decision-making and to intelligent systems design. Use the data to improve products and their use in the field to offer and build new service offerings. Think big, but start small, with 'proof-of-concept' projects.

- **Transform into a digital enterprise**

Capturing the full potential of digital transformation often requires company-wide transformation. Look to set 'tone from the top', with clear leadership, commitment and vision from the C-suite and financial stakeholders. Foster a digital culture: Many of your employees will need to think and act like digital natives, and be willing to experiment with new technologies and learn new ways of operating. Change doesn't stop once you've implemented digital transformation. Your company will need to reinvent its capabilities at faster rates than in the past to stay ahead of the game.

- **Actively plan an ecosystem approach**

Develop complete product and services solutions for your customers. Use partnerships or align with platforms if you cannot develop a complete offering internally. You may find it difficult to share knowledge with other companies, and you may prefer acquisition. But look for ways to bridge this gap—perhaps with technical standards—so that you can profit from being part of platforms that you don't fully control. Real breakthroughs in performance happen when you actively understand stakeholder behaviour and can orchestrate your company's role within the future ecosystem of partners, suppliers and customers.

Blueprint for digital success



Contacts

Pieter Theron

Partner, PwC Advisory Technology
+27 11 287 0501
pieter.theron@pwc.com

Ghalib Rassool

PwC Advisory Technology – Mining & Manufacturing Lead
+27 11 287 0515
Email: ghalib.rassool@pwc.com

6

Financial performance



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 in each edition of *SA Mine*. The column for 2016 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 2017 and 2016.

The reason for the difference in revenue for 2016 in this summary and the income statement used in the financial performance section may be ascribed to the exclusion of some entities from the publication, offset by the inclusion of others as well as retrospective changes in errors or accounting policy.

Ten-year summary of financial performance

R' billions	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Revenue	371	333	335	327	332	339	303	227	237	218
Adjusted EBITDA	95	66	75	100	92	123	101	48	85	84
Net profit/(loss)	17	(46)	2	5	25	65	55	20	15	54
Adjusted EBITDA margin	26%	20%	22%	31%	28%	36%	33%	21%	36%	39%
Cash flow from operating activity	83	69	62	69	69	112	62	40	59	73
Total capital expenditure	48	49	55	57	71	70	55	58	62	57
Total assets	692	709	724	694	714	650	595	548	509	470

Source: PwC analysis

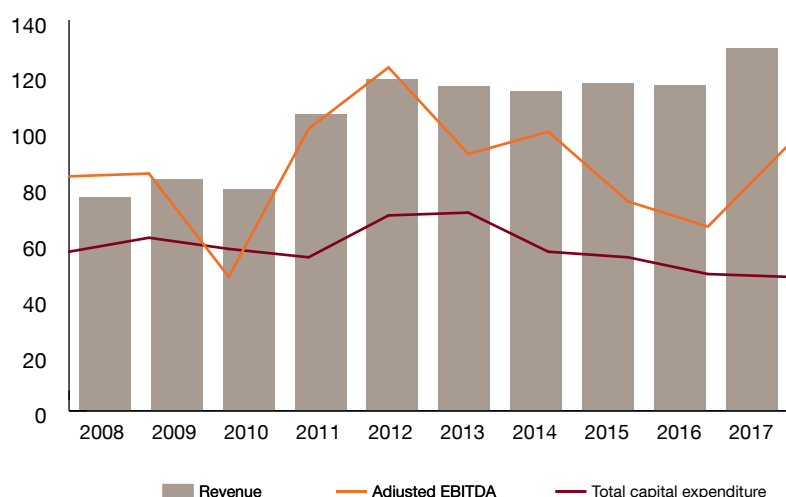
The ten-year summary shows flat revenue with significantly reduced profitability as a result of continued increases in cost pressures and marked impairments. The improvement in the current year does provide hope of some recovery for the sector.



MY AREA OF RESPONSIBILITY STARTS HERE

MANAGER	1
M/O	2
S/BOSS	3
MINER	4

Fig 24: 10-year historic financial information



Source: PwC analysis

Aggregated cash flows

	Current year	Prior year	Difference	% change
	R 'billions	R 'billions	R 'billions	
Free cash flows				
Cash generated from operations before working capital changes	99	71	28	(39%)
Working capital changes	(2)	7	(9)	(128%)
Cash generated from operations after working capital changes	97	78	19	24%
Other	0	(1)	1	(100%)
Income taxes paid	(14)	(9)	(5)	56%
Net operating cash flows	83	68	15	22%
Purchases of Property, plant and equipment	(48)	(48)	0	0%
Free cash flow	35	20	15	75%
Cash flows related to investing activities				
Purchase of investments	(8)	(6)	(2)	33%
Sale of investments	3	13	(10)	77%
Other	(3)	(2)	(1)	50%
Net investing cash flows	(8)	5	(13)	(260%)
Cash flows related to financing activities				
Proceeds from ordinary shares issue	8	4	4	100%
Proceeds from interest-bearing liabilities	67	38	29	76%
Repayment of interest-bearing liabilities	(82)	(52)	(30)	58%
Distribution to shareholders	(6)	(8)	2	25%
Net financing activities	(13)	(18)	5	28%
Net increase in cash and cash equivalents	14	7	7	100%
Cash and cash equivalents at the beginning of period	34	26	8	31%
Cash and cash equivalents at the end of the year	48	33	15	45%

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.

This year shows a pleasing improvement driven by an underlying performance and a continuation of austerity measures.

Cash flow from operations before working capital changes strengthened by 39 % due to higher margins on the back of improved commodity prices and better controlled increases in input costs. In the prior year, weak cash flows forced companies to manage their working capital, resulting in a decrease in inventories and an increase in trade payables.

The working capital position didn't unwind as might have been expected. Inventory levels are still managed at these low levels and trade payables have in fact continued to increase.

The higher profitability resulted in higher taxes paid. However, there is not enough confidence in the industry to drive additional capital investment with capital expenditure still staying at 10-year lows.

It was pleasing to note that all commodities reflected improved cash flows from operations, although the bulk of the improvement was driven by the December-reporting gold producers and the coal and iron ore producers due to better prices achieved.

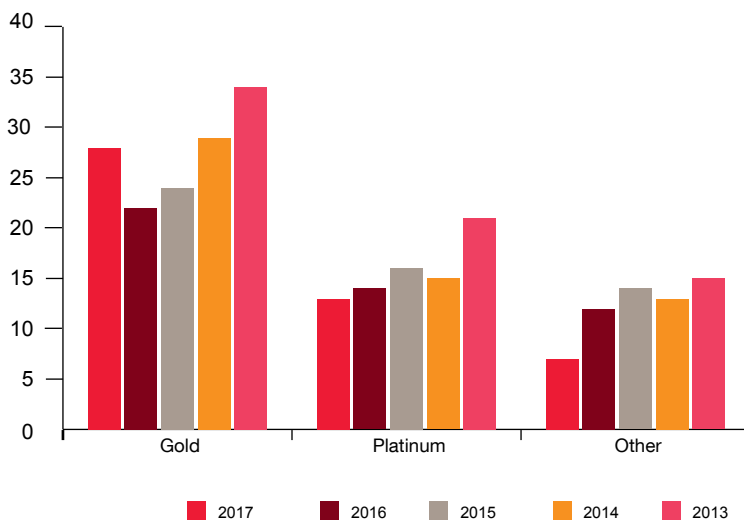


Purchase of property, plant and equipment

Purchase of property, plant and equipment was flat on the prior year. Although a large number of companies followed through on their reduction in capital expenditure, only Kumba Iron Ore's R4.4 billion reduction to R2.4 billion stands out. This decrease was offset by the R1.9 billion increase at AngloGold Ashanti, and R1.5 billion each at Gold Fields and Harmony.

For AngloGold Ashanti and Goldfields, the increases were exacerbated by the weaker rand during their reporting periods. In dollar terms, their increases were marginal. At Harmony, the increase related to their development of the Hidden Valley gold project in Papua New Guinea.

Fig 25: Capital expenditure per commodity (R 'billions)



Source: PwC analysis

Of the aggregated capital expenditure, 87% was incurred by only eight companies:

- AngloGold Ashanti R10.5 billion (up from R8.5 billion)
- Goldfields R9.6 billion (up from R8.1 billion, only a 2.5% increase in USD terms)
- Anglo American Platinum R5 billion (down from R5.2 billion)
- Sibanye Stillwater R4 billion (up from R3.3 billion)
- Harmony Gold R3.9 billion (up from R2.4 billion)
- Impala Platinum R3.4 billion (down from R3.7 billion)
- Exxaro Resources – R2.8 billion (up from R2.4 billion)
- Kumba Iron Ore (R 2.4 billion down from R6.7 billion)

Investing activities

We saw a number of companies selling non-core assets in the prior year to refocus their businesses, strengthen their balance sheets and generate desperately required cash. Although the sales process has continued, increases in commodity prices allowed companies to reassess the haste with which they had to sell and potentially would allow them to generate better returns, either through the eventual sales at higher values or through the continuing use of the assets.

Perhaps the more telling investment move was Sibanye Gold, now Sibanye Stillwater, which diversified from a gold company into a significant PGM producer. Sibanye Stillwater, successfully acquired Aquarius Platinum in April 2016 for R4.3 billion and Rustenburg Platinum Mines from Anglo American Platinum in October 2016 for an upfront amount of R1.5 billion. In December 2016 they announced the purchase of Stillwater, a PGM producer in the USA with palladium as main product. The Stillwater transaction will only be reflected next year.

Financing activities

Equity

There were minimal share issues in the current year. Gold Fields and Lonmin accounted for the majority of the current year's proceeds, at R2.3 billion and R5.4 billion, respectively.

Gold Fields completed a R2.3 billion accelerated equity raising by way of a private placement to institutional investors. The net proceeds from the placement were used to finance the buy-back of US\$1 billion notes. Lonmin also raised \$400 million in the form of a rights issue at a 94% discount to the price when the rights issue was announced in November 2015. In the current low-price environment, raising cash through equity is often seen as a last resort.

Borrowings

A number of companies restructured their debt to improve repayment profiles and strengthen their balance sheets. The new debt generally came at higher rates as they were reprised in a higher interest-rate environment.

In the prior year, net debt of R14 billion was settled mainly from the proceeds of non-core asset sales. In the current year a further R15 billion net debt was settled.

AngloGold Ashanti accounted for a net R11 billion debt settlement due to the settlement of its high-yield bonds. The settlement was largely done out of operating cash flows generated.

Kumba Iron Ore settled R3.7 billion of short-term debt from free cash flows generated. Lonmin made use of its rights issue proceeds to net settle R5.2 billion of debt.

Sibanye Stillwater raised net R5.4 million under its revolving credit facility in order to fund the acquisition of Aquarius Platinum and Rustenburg Platinum Mines. Impala had a bond issue to early settle its previous bonds and to raise an additional R2.5 billion.

Distribution to shareholders

Dividends are generally paid after the financial year end. In line with the weak financial results of the previous year, dividends therefore decreased as expected. The biggest decrease came from Kumba Iron Ore as the company did not declare a dividend in the current year due to continued market volatility. The company had declared a R3.3 billion dividend in the 2015 financial year.

Other notable dividends include R1.6 billion paid by Sibanye Stillwater, R1.1 billion by Assore and smaller dividends by most of the gold producers.

Aggregated income statement

	Current year	Prior year	Difference	% change
	R 'billions	R 'billions	R 'billions	
Revenue from ordinary activities	371	328	43	13%
Operating expenses	(276)	(263)	(13)	5%
Adjusted EBITDA	95	65	30	46%
Impairment charge	(22)	(58)	(36)	62%
Depreciation	(45)	(41)	(4)	10%
PBIT	28	(34)	62	182%
Net interest	(10)	(10)	0	0%
Tax expense	(11)	(1)	(10)	(1000%)
Equity accounted income	9	2	7	350%
Discontinued operations	0	(3)	3	100%
Net profit/(loss)	16	(46)	62	135%
Adjusted EBITDA margin	26%	20%	6%	
Net profit margin	4%	(14%)	18%	

Revenue

	Current year	Prior year	Difference	% change
	R' billions	R' billions	R' billions	
Gold*	156	133	23	17%
Platinum	128	123	5	4%
Other	88	76	12	16%

* For the purposes of performance assessment we grouped Sibanye Stillwater with gold companies as the impact of their various PGM additions will only become substantial from next year.

Revenue increased by 13% (R43 billion) from the prior year. This is the first substantial increase in more than five years.

The gold companies' revenue increased by 17% (R23 billion) due to improvements in USD gold prices and a weaker rand for most of the reporting period. The stronger rand during the 2017 calendar year and the slightly weaker USD price is likely to result in a reversal in part of this growth in the next year.

Further mine closures and/or retrenchments such as those being considered by AngloGold Ashanti and Sibanye Stillwater will also impact on the volume of production and are therefore likely to impact revenue negatively.

The other mining companies increased revenue by 15% (R12 billion), mainly driven by higher iron ore and manganese prices, which resulted in a R4 billion increase at Kumba Iron Ore and a R4 billion increase at Assore.

Exxaro Resources also grew revenue by R2.5 billion due to higher export sales volumes and prices despite lower power station sales to Eskom. Other miners generally reflected some revenue growth on the back of higher commodity prices.

The platinum companies have seen revenue increases by 4% from the prior year on the back of improved rand platinum prices for parts of the year. However, as is the case with gold, the stronger rand during the 2017 calendar year and weaker PGM prices will negatively impact revenue for next year. It is likely that these weaker prices will also have an impact on production as was the case with the closure of Atlatsa's Bokoni mine.

Operating expenses

Operating expenses increased by R13 billion, which is a 5% increase from the prior year. This increase is in line with inflation despite rand-exchange-rate driven cost increases at the USD-denominated gold mining companies.

The low increase in operating cost is testimony to the various savings initiatives implemented by management, including the reduction in marginal production, renegotiation of supply agreements and a reduction in overhead structures.

A breakdown of the operating expenses for companies that disclosed expenses by nature (representing 76% of aggregated revenue) is depicted in figure 26, with the year-on-year increase for these companies included in the table.

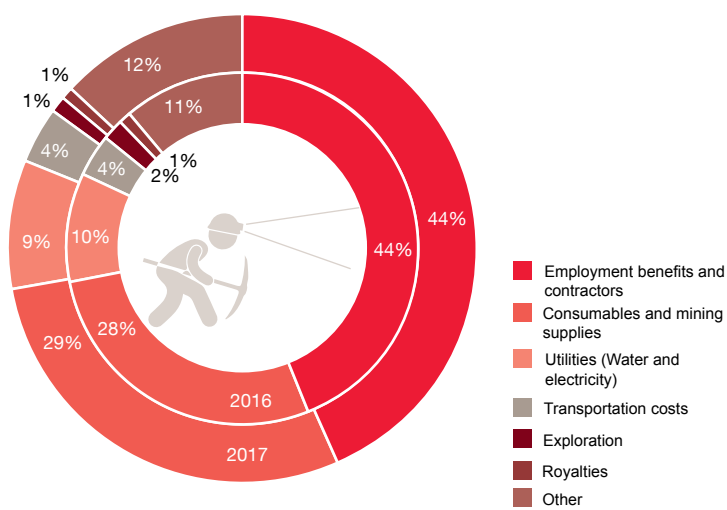
Breakdown of operating expenses

Year-on-year increases (decreases) in operating expenses

Cost component	Current year	Prior year
Employment benefits and contractors	4.5%	5.2%
Consumables and mining supplies	0.9%	20.3%
Utilities	10.7%	18.4%
Transportation costs	10.1%	9.4%
Royalties	89.9%	(40.8%)
Exploration	33.1%	9.6%

Source: PwC analysis

Fig 26: Breakdown of operating expenses



Source: PwC analysis

Labour cost

Labour still account for the majority of mining companies' costs, accounting for approximately 44%. Labour cost increased by 4.5%, which was marginally below inflation. This lower than usual increase unfortunately reflects a decrease in employment in some areas as companies were forced to rationalise in the tough operating environment.



Average year-on-year increases in total guaranteed packages in the mining industry (%)

Employee category	2013	2014	2015	2016	2017
Executives	6.5	6.5	7.4	4.1	6.6
Management	7.0	6.6	6.5	5.6	6.4
General staff	6.3	6.8	-	6.3	6.9
Unionised staff	7.2	8.8	6.9	8.2	8.0
Total average lift to payroll	7.2	7.0	7.1	5.9	7.0

Source: PwC Remchannel semi-annual Salary and Wage Movement Survey

Consumables

Consumables increased by only 0.9%. Companies continued to implement cost saving measures, which included cutting back on unprofitable production. Consumables are generally one of the few costs that are not fixed and can adjust downward with lower production.

Utilities

Utilities constitute 9% of total operating costs. Eskom applied to the National Energy Regulator of South Africa (Nersa) for a 16% average tariff increase on each of 1 April 2013, 2014, 2015, 2016 and 2017. Nersa granted Eskom an average increase of 8% for each of the years, except for the actual legislated increase applicable to the mining industry on 1 February 2015, which was 12.69%, being 8% plus 4.69% due to the clawing back by Eskom of prudent costs through the 'Regulatory Clearing Account' in respect of the three-year period from April 2010 to March 2013 and an increase of 9.4% effective 1 April 2016.

Effective 1 April 2017, Nersa approved a 2.2% electricity increase. It is not clear what increases will be granted in future.

Royalties

Royalties have increased across the various mining companies due to an increase in the revenue generated.

Higher profitability resulted in a higher percentage applied to the higher revenue generated.

Transportation costs

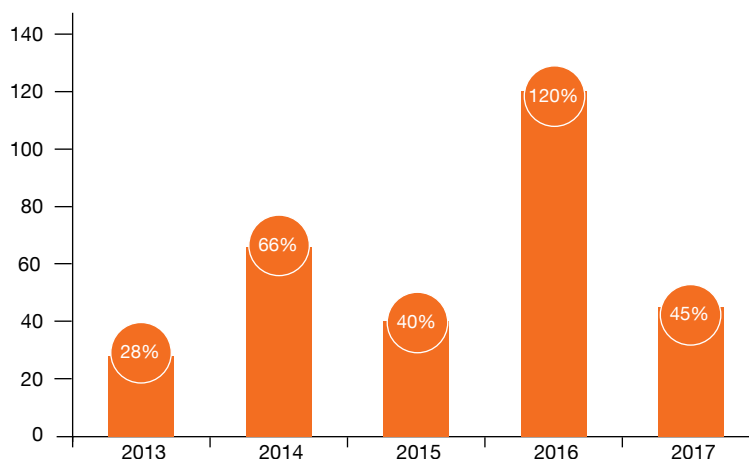
Transportation costs mainly relate to the suppliers of bulk commodities e.g. iron ore and coal. The increase in fuel costs is mainly due to an increase in production activity.

Impairment

Continued low commodity prices have, as expected, resulted in another year with substantial impairments in the industry, with a total of R22 billion in impairment provisions.

More than R100 billion was impaired over the last three years, more than wiping out the last two years of capital expenditure in the industry.

Fig 27: Impairment as a percentage of capital expenditure



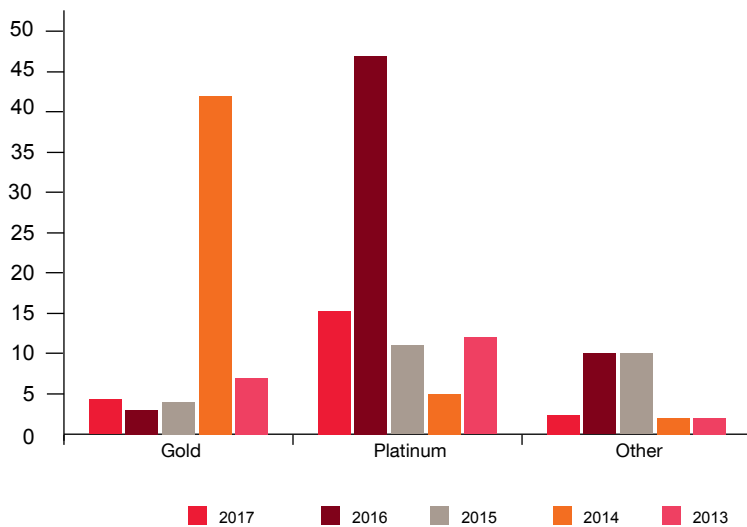
Source: PwC analysis

The ongoing low platinum rand basket price required additional platinum impairments in the current year after the record impairments of the previous year. Included in other impairments is a further R1.2 billion relating to ARM's interest in the Modikwa platinum mine.

Gold companies were also not spared and operations unable to function below the record rand gold price environment of the prior year required impairments.



Fig 28: Impairment per commodity (R 'billions)



Source: PwC analysis

The largest contributors to impairment provisions were:

- Impala Platinum: R10.2 billion;
- Lonmin: R4.9 billion;
- African Rainbow Minerals: R2.2 billion;
- Harmony Gold: R1.7 billion;
- Sibanye Stillwater: R1.4 billion; and
- Gold Fields: R1.1 billion

Depreciation

Depreciation increased by R4 billion mainly as a result of the weaker rand in relation to USD-denominated assets.

Net interest

Net interest expense was flat from the prior year as the substantially lower net borrowing position was offset by higher interest rates on restructured borrowings.

Taxation

The mining companies had an aggregated tax expense of R11 billion for an effective tax rate of 41%. This higher than expected effective tax rate results from a number of subsidiaries with tax losses for which no deferred tax assets were created.

Net profit

After last year's net loss the companies in this year's analysis are back into a net profit position due to lower impairments.

The EBITDA margin of 26% is 6% higher than the previous year. Seven companies achieved a higher than average EBITDA percentage.

Companies with EBITDA above 20%

	Current year	Prior year
Bauba Platinum	67%	4%
Kumba Iron Ore	46%	33%
Gold Fields	43%	36%
Assore*	42%	28%
Sibanye Stillwater	34%	21%
AngloGold Ashanti	29%	25%
Exxaro Resources*	28%	33%

* Note that these companies have significant equity income from associates, not associated with revenue, which therefore positively influences their ratio.
Source: PwC analysis

As can be seen from the table, different commodities had vastly different performance outcomes for the year.

Analysis by commodity

	Current year R 'billions	Prior year R 'billions	Difference R 'billions	% change
EBITDA				
Gold	50	34	16	47%
Platinum	15	10	5	50%
Other	30	22	8	36%

	Current year %	Prior year %	Difference
EBITDA margin			
Gold	32%	26%	6%
Platinum	12%	9%	3%
Other	34%	28%	6%

	Current year R 'billions	Prior year R 'billions	Difference R 'billions	% change
Net profit/(loss)				
Gold	7	(2)	9	450%
Platinum	(15)	(44)	29	66%
Other	23	0	23	100%

Source: PwC analysis

It is encouraging that all commodities improved their EBITDA margins. However, the extremely low platinum EBITDA margin is still a significant concern and threatens the sustainability of a number of operations.

Foreign exchange impact

The impact of the rand exchange rate on performance is quite substantial. When converting the aggregated income statements at the relevant average USD exchange rate, a substantial difference in performance emerges.

There was in essence no USD revenue growth. However, costs were also controlled and actually decreased, resulting in an improved EBITDA.

Income statement

	Current year USD 'billions	Prior year USD 'billions	Difference USD 'billions	% change
Revenue from ordinary activities	26	25	1	4%
Operating expenses	(19)	(20)	1	(5%)
Adjusted EBITDA	7	5	2	40%
Impairment charge	(2)	(5)	3	(60%)
Depreciation	(3)	(3)	0	0%
PBIT	2	(3)	5	167%
Net interest	(1)	(1)	0	0%
Tax expense	(1)	(0)	(1)	100%
Equity accounted income	0	(0)	0	0%
Discontinued operations	1	0	1	100%
Net profit	1	(4)	5	125%
Adjusted EBITDA margin	27%	20%	7%	
Net profit margin	4%	(16%)	20%	

Financial position

	Current year R 'billions	Prior year R 'billions	Difference R 'billions	% change
Current assets				
Cash and cash equivalents	58	47	11	23%
Inventories	55	56	(1)	(2%)
Receivables and other current assets	42	31	11	35%
Assets held for sale	2	-	2	100%
Derivative financial assets	3	-	3	100%
Total current assets	160	134	26	19%
Non-current assets				
Mining and production assets	403	421	(18)	(4%)
Goodwill	6	6	-	0%
Investments	99	96	3	3%
Derivative financial assets	-	1	(1)	(100%)
Other non-current assets	23	31	(8)	(26%)
Total non-current assets	531	555	(24)	(4%)
Total assets	691	689	2	0%
Share capital and reserves				
Share capital	382	383	(1)	0%
Reserves and non-controlling interest	13	2	11	550%
Total equity	395	385	10	3%
Current liabilities				
Accounts payable and other liabilities	76	61	15	25%
Interest bearing liabilities	14	19	(5)	(26%)
Total current liabilities	90	80	10	13%
Non-current liabilities				
Interest bearing liabilities	106	124	(18)	(15%)
Deferred taxation liabilities	52	59	(7)	(12%)
Derivative financial liabilities	2	-	2	0%
Other non-current liabilities	44	40	4	10%
Liabilities held for sale	2	1	1	0%
Total non-current liabilities	206	224	(18)	(8%)
Total liabilities	296	304	(8)	(3%)
Total equity and liabilities	691	689	2	0%

Key ratios

	Current year	Prior year	Global mine ratios
Market capitalisation to net book value (times)	1.0	1.5	1.5
Net borrowings (R 'billions)	62	96	
Gearing percentage	14%	20%	29%
Net borrowings to EBITDA	0.6	1.5	1.9
Solvency ratio (times)	2.3	2.3	1.9
Current ratio (times)	1.8	1.7	1.4
Acid ratio (times)	1.2	1.0	1.0

The return to profitability in the current year resulted in an improved aggregated financial position. Solvency and liquidity ratios remained relatively strong at levels better than the global equivalent. The ratios indicate that the South African mining industry is less geared than the trend is globally.

Market capitalisation compared to net asset value weakened again to 1.0 times to be at similar lows to 2015. Although there is a measurement date difference with the global ratio of 1.5 times, the low in June had more to do with the announcement of the new Mining Charter in June 2017 than any other fundamental difference. It did recover to 1.3 in August on the hope that there would be an amicable solution between industry and the regulator.

At an individual company level, 14 of the 25 companies (2016: 15 out of 27) companies had net book values exceeding their market capitalisations.

At commodity level the picture is interestingly different.

Platinum

Key ratios

	Current year	Prior year
Market capitalisation to net book value (times)	1.0	
Net borrowings (R 'billions)	17	26
Gearing percentage	11%	15%
Net borrowings to EBITDA	1.1	2.4
Solvency ratio (times)	2.5	2.5
Current ratio (times)	1.9	1.9
Acid ratio (times)	1.0	1.0

With the weak performance in the platinum sector one might have expected a significantly weaker financial position. However, with the exception of two ratios, the platinum ratios are stronger than that of the aggregate ratios. Platinum companies were forced to structure more conservative balance sheets in the midst of the low-price environment to ride out the storm. Capital raisings and long-term bond and preference share funding improved the short-term debt position considerably.

Net borrowings to EBITDA is the only substantially weaker ratio as a result of the weak income statement performance, yet it is still better than the global average and within acceptable levels. Unfortunately, if operating cash outflows continue as a result of low prices and an inability to restructure operations for the lower price environment, then this position can again weaken quite quickly.

Gold

Key ratios

	Current year	Prior year
Net borrowings (R 'billions)	50	60
Gearing percentage	28%	32%
Net borrowings to EBITDA	1.0	1.8
Solvency ratio (times)	1.9	1.9
Current ratio (times)	1.3	1.5
Acid ratio (times)	0.9	0.9

Gold companies have been performing well over the last couple of years as a result of higher rand gold prices, in particular in the 2016 calendar year. This allowed mining companies to fund investments through a higher level of debt funding rather than equity, as was required by the platinum companies. The gold mining companies in our analysis also have a bigger international footprint, which allows them to be more aligned with global gearing levels.

The result is that almost all the ratios are slightly weaker than the aggregate, although well within the global averages except for the acid ratio. As gold final product inventory is readily convertible to cash, the acid ratio of less than one is less of a concern than might be the case for some other commodities.

All the gold companies, other than Sibanye Stillwater, have been using profits in the higher price environment to reduce net debt levels. Sibanye Stillwater utilised its strong gold position to buy various PGM assets to become a diversified precious metal company.

Working capital

After the well-publicised liquidity concerns of the last two years, ongoing debt restructuring and a return to profitability resulted in improved liquidity ratios.

The acid ratio of 1.2 has again improved to be above the average and is again at a very acceptable level. However, the average rate hides the individual low liquidity experienced by some companies. Ten (2016: 12) had acid ratios of less than 1.0 and worse still, six (2016: eight) had current ratios of less than 1.0.

A large number of companies have made significant effort to restructure their balance sheets, preserve cash and contain costs. Liquidity risk is still a major concern, as reflected in various integrated reports, where strategies to address the issue have been shared.

Cash increased by a further R11 billion from the prior year (R11 billion increase in 2016). Current liabilities increased by R10 billion from the prior year, indicating that the cash increase might be a temporary difference in settling trade payables (R8 billion increase) rather than a real cash improvement.

Significant increases in current liabilities at Anglo American Platinum (R7.6 billion), Gold Fields (R3 billion) and Exarro (R2.8 billion) were partially offset by the R8 billion reduction at Lonmin after its rights issue and debt restructuring.

Financing

The net borrowings position decreased from R96 billion to R 62 billion as a result of increased cash and some significant settlement of liabilities.

A number of companies restructured their balance sheets:

- Gold Fields successfully refinanced its US\$1 440 million credit facilities due in November 2017. The new facilities amount to US\$1 290 million with US\$740 million maturing in June 2019 and \$550 million maturing in June 2021.
- Sibanye Stillwater cancelled and refinanced its R4.5 billion revolving credit facility with a R6 billion revolving credit facility.
- Implats raised R6.3 billion in a new bond issue to early settle its 2018 R4.5 billion bonds.
- Lonmin raised US\$395 million in its rights issue, raised US\$150 million in long-term debt and settled US\$506 million in short-term debt.
- AngloGold Ashanti redeemed the \$503 million outstanding on the high-yield bonds due in 2020 by drawing down US\$330 million from its revolving credit facility and using cash resources. Although this replaced long-term debt with cheaper short-term debt, the short-term debt continues to be settled from cash generated from operations.
- Exarro refinanced its R8 billion term loan facility at attractive rates.

The exchange rate played a significant role, particularly for December year-end companies. More than R8 billion of the decrease in interest-bearing borrowings relates to the rand exchange rate strengthening at 31 December 2016 versus the very weak 31 December 2015 rate.

The gearing ratio has decreased substantially from the 20% in the prior year to 14% in the current year. The improvement is mainly as a result of the improved financial performance for 2017.

The real weighted average cost of capital (WACC) of 8.2% to 9.0% for a diversified mining company has not changed from last year. The 10-year government bond yields have increased by about 20 basis points since June 2016 and the macroeconomic outlook in terms of inflation remains stable at approximately 5.3% in the long term.

Indicative mining industry weighted average cost of capital

Indicative WACC range		Low	High
Cost of equity			
SA risk-free rate	Rf	9.40%	9.43%
Beta	β	1.06	1.06
Equity market risk premium	ErVRP	5.50%	6.50%
Small stock premium	SSP	0.00%	0.00%
Alpha	α	0.00%	0.00%
$Rf + (\beta * EMRP)$	Ke	15.20%	16.30%
Cost of debt			
Pre-tax cost of debt	kd	10.30%	10.30%
Tax rate	T	28.00%	28.00%
$Kd * (1-T)$	Kd	7.40%	7.40%
Capital structure			
% of equity		83.00%	83.00%
% of debt		17.00%	17.00%
WACC			
$[Ke * (e/(d+e))] + [Kd * (d/(d+e))]$		13.90%	14.80%
Average			14.40%
South African CPI		5.30%	5.30%
Real WACC		8.20%	9.00%
			8.60%

Accounting for provisional pricing arrangements in terms of IFRS 15



Sales contracts for certain commodities often incorporate provisional pricing, i.e. at the date of delivery of the mineral ore, a provisional price may be charged. The final price is generally an average market price for a particular future period. The future price may also vary depending on the results of the final assays regarding the quality or quantity of the commodity sold.

Under current practice, revenue from the sale of provisionally priced commodities is recognised when risks and rewards of ownership are transferred to the customer. This would generally be the date of delivery. At this date, the amount of revenue to be recognised will be estimated.

At each subsequent period end, the estimate of the provisionally priced contracts are generally updated using the most recent market prices and assay results with any resulting differences recognised within revenue. The related receivables under these contracts are measured at amortised cost.

The key question is whether or not this practice can continue once the new revenue and financial instruments standards become effective. Provisional pricing arrangements introduce an element of variability into the contract. This variability may take many forms. Three main categories of variability are noted:

- Non-market variability, for example, changes in pricing based in the results of the quantity or quality of the commodity as concluded in a final assay;
- Market variability, for example, pricing based on a future or average market price; or
- A combination of market and non-market variability.

On delivery date, control of the commodity usually transfers to the customer, and the related receivable is recognised. The revenue entry is governed by IFRS 15 *Revenue from Contracts with Customers* and the receivable is accounted for in terms of IFRS 9 *Financial instruments*. One must therefore consider how the variability is accounted for under both the new standards.



IFRS 15 Revenue from Contracts with Customers

IFRS 15 Revenue from Contracts with Customers was issued in May 2014 and becomes effective for the first time for periods beginning on or after 1 January 2018.

This new revenue standard provides a comprehensive framework for recognising revenue from contracts with customers.

The new revenue standard incorporates a five-step model that preparers should use to assess contracts under the new guidance.

Step three of the new revenue standard requires entities to estimate the amount of variable consideration to which it will be entitled and include that estimate in the transaction price.

It is important to note that the variable consideration is constrained, i.e. an amount of variable consideration should be included in the transaction price only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur when the uncertainty associated with the variable consideration is subsequently resolved ('the constraint').

The objective of this variable consideration constraint is to reduce the risk of subsequent reversals of revenue, but not to eliminate the use of estimates.

Key: Revenue is not measured at fair value, it is subject to the constraint.

IFRS 9 Financial instruments

In July 2014, the IASB published the complete version of IFRS 9 Financial instruments, which replaces the guidance in IAS 39. This final version includes requirements on the classification and measurement of financial assets and liabilities. The new standard is effective 1 January 2018.

In terms of the new standard, a financial asset will be measured at amortised cost if the financial asset is held within a business model whose objective it is to hold financial assets in order to collect contractual cash flows; and the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal outstanding amount.

Contractual terms that introduce exposure to risks or volatility in the contractual cash flows that is unrelated to a basic lending arrangement, such as exposure to changes in commodity prices, do not give rise to contractual cash flows that are solely payments of principal and interest on the principal amount outstanding. These contracts would then be measured at fair value through profit or loss.

Key: The receivable is measured at fair value and not subject to the constraint

In December 2015, the IASB considered the link between the variable consideration constraint in the new revenue standard and the requirements of the new financial instruments standard when the variable consideration varies based on a future market price.

The conclusion reached by the IASB is that when the seller has a right to consideration that is conditional only on a market price, that receivable is accounted for in accordance with IFRS 9 *Financial Instruments*, i.e. the constraint will not apply to the receivable recognised.

By the same token, the IASB concluded that non-market variability remains within the scope of IFRS 15 *Revenue from Contracts with Customers*, and the amount recognised is subject to the constraint. The following guidance will apply in the scenarios described below:

1. Guidance when the variability in the receivable arises from a non-market variable only

On the delivery date, revenue and a receivable is recognised at the best estimate of the amount to be received, subject to the constraint.

Subsequently, all changes in the variability are accounted for within revenue and adjusted against the related receivable or contract asset.

2. Guidance when the variability in the receivable arises from a market price only

In provisional pricing transactions where movements in the price vary based on an underlying commodity price, the receivable may not be measured at amortised cost.

The only other alternative is to measure the entire instrument at fair value through profit or loss. Interestingly, the fair value of this instrument does not contain the same variable consideration constraint as detailed in the new revenue standard.

This means that on the delivery date, the revenue in the scope of IFRS 15 is measured in accordance with the constraint.

Immediately thereafter, the receivable is measured at fair value through profit or loss with 'other revenue' being the credit side of the journal entry. Thereafter, the financial instrument guidance applies to the commodity price volatility and the movement in the commodity price is still recorded as revenue, just on the 'other revenue' line item. An illustrative example is included below:

Statement of comprehensive income

Revenue from contracts with customers	xxx
Other revenue: Revenue from movements in commodity prices	xxx
Cost of sales	(xxx)
Gross profit	xxx

3. Guidance when the variability in the receivable arises from a combination of market and non-market variables

The IASB did not comment on the correct accounting in these scenarios. We therefore think that there are two approaches that may be followed:

- The first approach is to combine both the market and non-market variability and account for it entirely within the scope of IFRS 9. This means that all variability is adjusted against 'other revenue' as explained in point 2 above.
- The second approach is to account for the non-market variability within the scope of IFRS 15, subject to the constraint and account for the market variability in terms of IFRS 9, similar to the approach explained in point 2 above.

Either of these two approaches are acceptable and the policy elected should be disclosed as an accounting policy choice and applied consistently.

Summary

In practice, we expect most provisional pricing arrangements to contain both market and non-market variability. It is our view that most entities will apply the approach discussed in point 3 because separating the market and non-market variability will be challenging and complex. This means that on the delivery date, the IFRS 15 revenue to be recognised will be subject to the constraint.

Furthermore, on the delivery date, the receivable must then be adjusted to reflect the variability of all the variable components (market and non-market variability combined). The contra entry will be recognised as 'other revenue'. Subsequently, the receivable and 'other income' will be adjusted until settled.



7

Glossary



acid ratio	(current assets less inventory)/current liabilities
adjusted EBITDA	EBITDA adjusted for impairment charges
adjusted EBITDA margin	adjusted EBITDA/revenue
BEE	black economic empowerment
CPI	consumer price index, published by Statistics South Africa
current ratio	current assets/current liabilities
DMR	Department of Mineral Resources
DWS	Department of Water and Sanitation
EBITDA	earnings before interest, tax, depreciation and amortisation
EBITDA margin	EBITDA/revenue
EITI	Extractive Industries Transparency Initiative
ETF	exchange-traded fund
FDI	foreign direct investment
gearing percentage	net borrowings/(net borrowings plus equity)
HDSA	historically disadvantaged South Africans
ICMM	International Council on Mining and Metals
IMF	International Monetary Fund
JSE	Johannesburg Stock Exchange
LTIFR	lost time injury frequency rate
market capitalisation	The market value of the company calculated as the number of shares outstanding, multiplied by the share price
MPRDA	Mineral and Petroleum Resources Development Act
NERSA	National Energy Regulator of South Africa
net borrowings	interest-bearing debt, less cash
NWA	National Water Act
NWRS 2	National Water Resources Strategy 2
PBIT	profit before interest and tax
PGMs	platinum group minerals
PPI	producer price index
SLP	social and labour plan



8

Companies included in the analysis



	Year end
African Rainbow Minerals Limited	June 2017
Anglo American Platinum Limited	December 2016
AngloGold Ashanti Limited	December 2016
Assore Limited	June 2017
Atlatsa Resources Limited	December 2016
Bauba Platinum Limited	June 2017
Buffalo Coal Corporation	December 2016
Chrometco Limited	February 2017
Coal of Africa Limited	June 2017
DRDGOLD Limited	June 2017
Eastern Platinum Limited	December 2016
Exxaro Resources Limited	December 2016
Gold Fields Limited	December 2016
Harmony Gold Mining Company Limited	June 2017
Impala Platinum Holdings Limited	June 2017
Jubilee Platinum plc*	June 2017
Kibo Mining plc	December 2016
Kumba Iron Ore Limited	December 2016
Lonmin plc	September 2016
Merafe Resources Limited	December 2016
Northam Platinum Limited	June 2017
Pan African Resources Limited*	June 2017
Resource Generation Limited	June 2017
Royal Bafokeng Platinum Limited	December 2016
Sibanye-Stillwater Gold Limited	December 2016
Tharisa plc	September 2016
Trans Hex Group Limited	March 2017
Wescoal Holdings Limited	March 2017
Wesizwe Platinum Limited	December 2016



* Publicly available financial results not available at time of writing



9

Basis for compiling this report



We aggregated the financial results of mining companies with a primary listing on the Johannesburg Stock Exchange (JSE) and mining companies whose main operations are in Africa and that have a secondary listing on the JSE, for the financial year ends to June 2017. 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, BHP Billiton, South32 and Glencore Xstrata. 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 have different year ends and report under different accounting regimes.

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 2017 covers reporting periods from 1 October 2015 to 30 June 2017, 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 29 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.

Contributors

- Cyril Azobu
- Debra Modiba
- Ghalib Rassool
- Jayne Mammatt
- Jean Jacques Mukula
- Liandie Kies
- Mandi Mashanyare
- Marcia Mokone
- Michael Quinton
- Michelle Botas
- Refiloe Makhateng
- Scott Williams
- Vuyiswa Khutlang





10

About PwC



Our global footprint as a firm means we have the right people to support you everywhere

Over **1 500** mining professionals across the globe located in all significant mining territories

More than **223 000** people who are committed to delivering quality in assurance, tax and advisory services

Professionals in **157** countries, working collaboratively

Our promise to you: 'Our relationship with you **creates the value** that you are looking for'.



Navigating the territory....

Our ability to quickly combine the right competencies, market knowledge and mining industry insights – uniquely for each client issue and territory – sets us apart from the rest.

We help organisations explore opportunities, navigate risk, achieve business goals and change business networks across Africa. Our professionals have financial and operational experience, knowledge of business processes, and industry insight which enables us to listen and understand your goals and the environment (competitive, economic and regulatory) in which you operate and provide you with a solution that's right for your organisation.

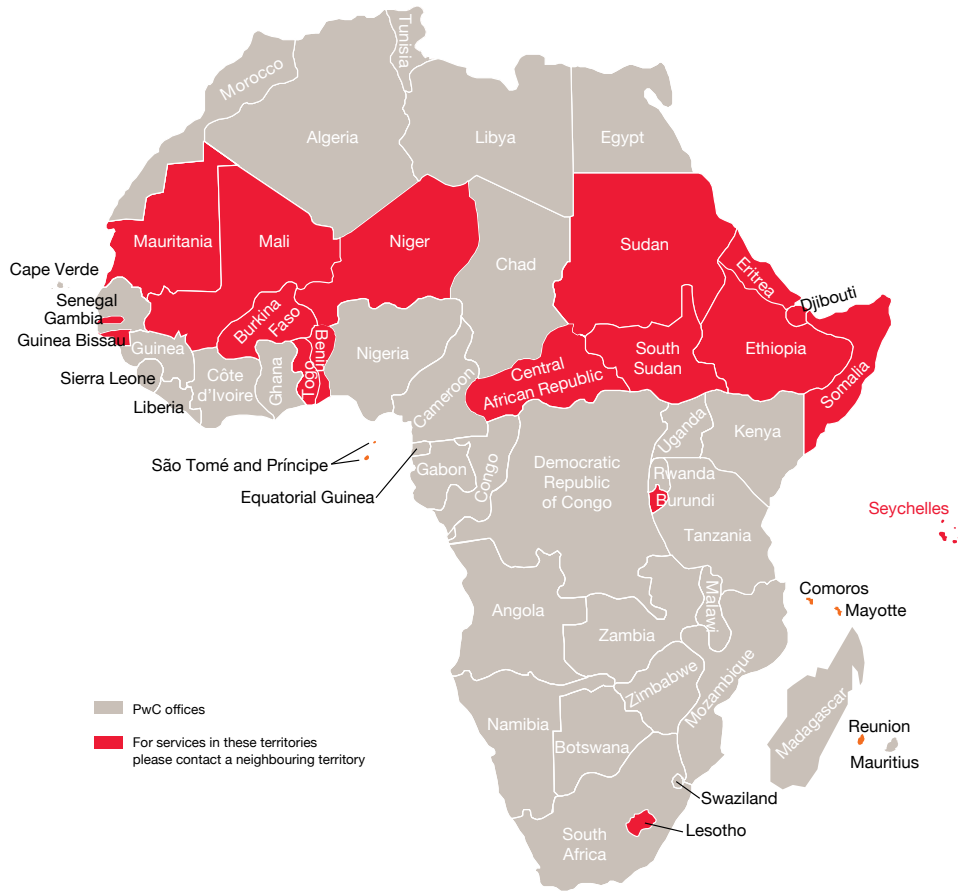
Our African mining practice actively recruits seasoned, multi-disciplined leaders with proven industry experience, a demonstrated ability to solve the most difficult business problems and a history of leading successful and sustainable continuous improvement initiatives from start to finish. We believe it's critical that our professionals can quickly understand your business, challenges and culture and then design and implement an effective solution for your organisation.

Apart from our extensive global reach and our deep level of industry experience and skills, building relationships with our clients is key to us. This is the core of what makes partnering with us effective and the return on your investment with us invaluable.



An extensive African Footprint

Our offices...



Africa is a vital part of our agenda.....

Our African footprint is unsurpassed – we operate in 34 countries and employ close to 9 000 staff members. In the countries in which we operate, we have offices in all the major cities. We have the largest African footprint of the major professional services firms. This allows us to quickly combine the right competencies, market knowledge and mining industry insights—tailored to each client issue and territory..

Our Africa Energy Utilities and Resources practice is a family of multi-disciplined leaders with proven industry experience and ability to understand and assist our clients. Our clients range from the largest multinationals to smaller entrepreneurs and the range of services that we offer is even wider. We tailor our services to meet the specific needs of each client from planning, strategy, operations to reporting.

We have experience across all sub industries of oil & gas, mining, power & utilities and energy. We are able to achieve this through our Africa EU&R Centre of Excellence (COE). The COE is a way of enabling our clients to access our subject experts.

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 Mining Centre of Excellence at mining.africa@za.pwc.com.

Jock O’Callaghan

Global Mining Leader

Melbourne, Australia
T: +61 (3) 8603 6137
E: jock.ocallaghan@pwc.com

Michal Kotze

Africa Energy, Utilities and Resources Leader

Johannesburg, South Africa
T: +27 11 797 4603
E: michal.kotze@pwc.com

Andries Rossouw

Mining Assurance Partner and Project Leader

Johannesburg, South Africa
T: +27 11 797 4060
E: andries.rossouw@pwc.com

Vuyiswa Khutlang

Mining Assurance Associate Director and Project Coordinator

Johannesburg, South Africa
T: +27 11 287 0773
E: vuyiswa.khutlang@pwc.com

George Kwatia

West Market Mining Industry Leader – Ghana

T: + 233 (0) 302 761 459
Email: george.kwatia@pwc.com

Nasir Ali

East Market Mining Industry Leader – Zambia

T: +260 211 334 000
Email: nasir.y.x.ali@pwc.com

Emmanuel le Bras

Francophone Africa Energy and Mining Industry Leader

T: +242 05 534 09 07
E: emmanuel.lebras@pwc.com

Jean Jacques Mukula

Energy, Utilities and Resources Assurance and Advisory Partner - DRC

T: +243 999309900
E: jean.jacques.mukula@cd.pwc.com

Cyril Azobu

Energy, Utilities and Resources Partner – Nigeria

T: +234 0802 322 7845
E: cyril.azobu@pwc.com

David Tarimo

Energy, Utilities and Resources Tax Partner – Tanzania

T: +255 (0) 22 219 2600
E: david.tarimo@pwc.com







©2017 PricewaterhouseCoopers ("PwC"), the South African firm. All rights reserved. In this document, "PwC" refers to PricewaterhouseCoopers in South Africa, which is a member firm of PricewaterhouseCoopers International Limited (PwCIL), each member firm of which is a separate legal entity and does not act as an agent of PwCIL. (17-21194)