PROFILE OF THE SOUTH AFRICAN MARKET

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Acknowledgements

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Chapter 1

- South African gold production ranks 13th globally, it is also home to Africa's only LBMA gold refinery.
- Chain of custody provenance and an emphasis on ESG extend across several global standards, including LBMA, the OECD, the RJC and the WGC.
- Despite the challenges of energy, economic and political security, there are growing opportunities to further enhance the country's beneficiation.

Introduction

In 2020, LBMA designated 12 International Bullion Centres (IBCs), that "operate important market infrastructure for bullion trading activities". In recognition of the importance of South Africa as a designated IBC, LBMA has asked Metals Focus to prepare a Spotlight report laying out the structure of its precious metals industry, covering the private sector and government bodies, and assess some of the opportunities and challenges facing the country's gold market.

To provide context, it is worth summarising some of the headline figures for South African gold supply and demand in 2022. In terms of the former, the country's mine supply ranks 13th globally at 93t. This places it fourth largest in Africa, but in terms of large-scale industrial mining in the region it only sits behind Ghana. Much of this gold is refined by Africa's only LBMA gold refiner, which is based in South Africa. While recycling is more difficult to gauge, Metals Focus estimate this could have reached 10t in South Africa last year, in response to rising local prices and increased levels of distress selling.

Turning to demand, most significant and high profile is the country's gold bullion coin programme. Up until 2022 this was based on the 22-carat Krugerrand, with a separate 24-carat bullion coin launched last year. First issued in 1967, the Krugerrand has achieved notable success overseas, especially in the all-important German market where it is arguably the best known retail gold investment product. In 2022, an estimated 30t of gold were used in the fabrication of official gold bullion coins in South Africa.

In sharp contrast, other areas of South African gold demand are modest. For example, gold jewellery fabrication appears to be less than 2t per annum (defined by Metals Focus as the first transformation of gold, excluding the assembly of semi-finished pieces).

Returning to supply, the mining of gold in South Africa is dominated by three companies, Harmony, Sibanye-Stillwater and Gold Fields, which together accounted for 76% of South Africa's total output in 2022. In contrast to many other gold producers in Africa, South Africa's artisanal and small-scale mining (ASM) is modest. While this is extremely difficult to quantify precisely, Metals Focus' assessment is that this is around 9t per annum, much of which is illegally mined.

In terms of the challenges the country faces, this is most apparent in terms of the economic and social problems in South Africa. To quote just a few headline figures, overall unemployment stands at around 33%, with the figure for the 15-25 age group a sobering 64%. The economic challenges extend to some parts of the infrastructure, most notably Eskom, the national electricity power utility. Energy rationing, or load shedding, is not a recent phenomenon, but the extent of this so far in 2023 has been unprecedented. This, however, has presented an opportunity, as a growing number of mining houses and refiners install photovoltaic units to help reduce their reliance on the state electricity provider. This also enhances the ESG profile of South Africa's precious metals industry, given that most of Eskom's electricity is generated from coal-fired power stations. In fact, this adds to an already robust ESG profile, given the industry's contribution to local communities. For example, the mining sector alone last year directly employed almost 94,000 people. There are also steps to develop a skilled workforce in other areas of the precious metals sector, including the country's jewellery industry.

Corporate responsibility also extends to traceability and chain of custody, which ties back into LBMA's IBCs. Once again, these are long established principals across the South African supply chain. For example, aside from implementing LBMA's Responsible Gold Guidance since it was first issued, there is adherence to requirements set out by the Responsible Jewellery Council, OECD, and the World Gold Council, among others.

Even though gold jewellery fabrication is extremely small in South Africa, the growing appetite for responsibly sourced products will increasingly resonate overseas. The US in particular, represents an exciting prospect, and especially in the context of the African Growth and Opportunity Act, which allows for duty free access in the US for South African products that meet certain value-added criteria. This also ties into beneficiation, which is gaining more attention locally. One example of this is the expected redraft of the Precious Metals Act, that the South African Diamond and Precious Metals Regulator is currently undertaking, which it hopes will bolster beneficiation in South Africa.

In many respects, the US is one high profile example of an untapped market and while this strategy has the support of the Jewellery Council of South Africa, it is also true that some infrastructure, such as Special Economic Zones are yet to be fully exploited. There is also the challenge of being able to fund these opportunities, not least following news that the Financial Action Task Force has recently grey-listed South Africa, which may weigh on inward investment.

Despite these challenges, it is worth remembering that South Africa already boasts a long standing and highly regarded refining and mining industry, much of which dates back over 100 years. Furthermore, in 2022, its bullion coin programme ranked fifth globally; over the past 13 years it has struck almost 470t of gold coins. Over and above this, the country is a key supplier of investment gold bars to overseas markets. Finally, as touched on above, numerous steps are already underway to further develop beneficiation within South Africa.

Chapter 2

- Gold exports are the third largest contributor to South African exports.
- Stage 6 load shedding imposes up to 20% curtailment of energy use for energy intensive industrial users in South Africa.
- Domestic precious metals mining, refining & fabrication is governed by legislation, which is updated from time to time to assist & enable transformation & inclusion, & to promote downstream beneficiation.

Social Political and Regulatory Landscape

Resource Economy

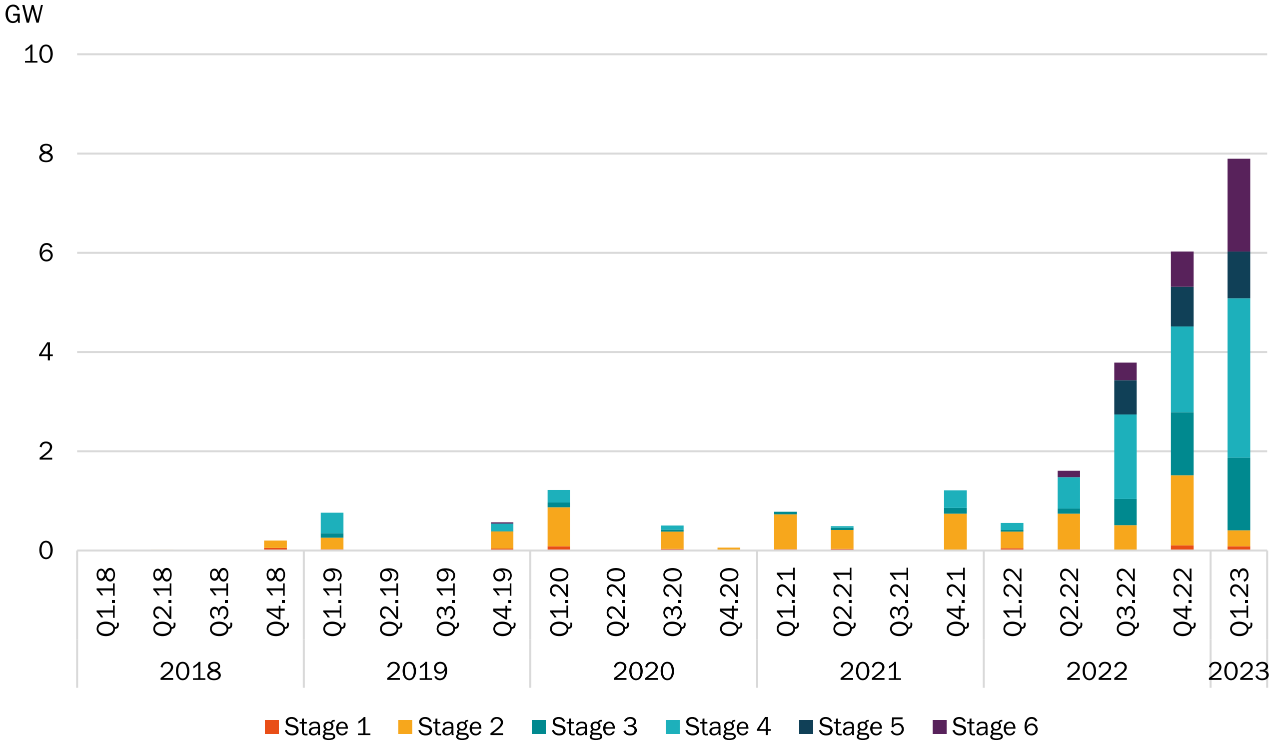
The ability of South Africa to extract, sell and export raw materials is a long-standing and key benefit towards the country's economic prosperity. In 2022, South Africa's non-energy mineral reserves were estimated at around $3 trillion, making it one of the wealthiest non-oil-producing countries in the world. By way of illustration, South Africa holds an estimated 49% of platinum and palladium, 43% of manganese, 35% of chromium and 5% of gold reserves. South Africa dominated global gold production in the 20th century, with over 75% of the world's gold reserves in 1970. However, due to resource depletion and high operating costs, the country's dominance in the global gold sector has declined, from first place in the 1970s to 13th in 2022. That said, the South African gold mining industry is the second biggest employer in the sector. According to the Minerals Council of South Africa, the gold industry accounted for 93,000 direct jobs in 2022 and enabled ten additional indirect jobs for every direct role. In addition, with 91% of gold exported in 2021 with a value of $7.4bn, it is the third largest contributor to South Africa's export earnings after platinum group metals and iron ore.

While the gold industry is vital to the country's wealth, it is vulnerable to two key deteriorating factors in South Africa today. Given its characteristically deep-level underground mining, electricity and water supply disruption can be costly. Not only does this come at the expense of production, but it also increases health and safety risks. The current energy crisis in the country is most visible through load shedding, a series of rolling blackouts imposed on Eskom's residential customers to prevent a total collapse of the grid.

Gold mining producers are not subject to load-shedding as intensive energy users. However, a load curtailment regime is applied, requiring producers to reduce their energy demand. As a rough guide, stage 1 and 2 load-shedding at the residential level will not impact operations, while stages 3 and 4 would involve a 10% load curtailment, stage 5 a 15% lowering, and stage 6 a 20% drop in energy demand. However, as the situation has deteriorated, the ability to manage curtailment has also become more challenging to manage.

While highly problematic in the near-term, there is a silver lining in the form of renewables. In response to the challenges the industry is facing to secure reliable grid power, several gold mining and refining companies have accelerated their decarbonisation plans, opting for renewable solutions aided by the South African government's landmark decision in 2021 to increase the licensing threshold for embedded generation projects from 1MW to 100MW. For example, Sibanye- Stillwater is developing a 50MW solar PV project to provide electricity for its Kloof ultra-deep level gold mine and Goldfields 40MW solar plant project at South Deep. Meanwhile, the Rand Refinery has invested in the installation of a 2.5 to 3.0MW solar farm and fuel cell to manage potential grid failures and also reduce carbon emissions. In addition, Metal Concentrators' new refining facility in the Special Economic Zone at Johannesburg International Airport (Oliver Tambo) can sometimes run entirely independently from the utility provider following their 290kW solar installation.

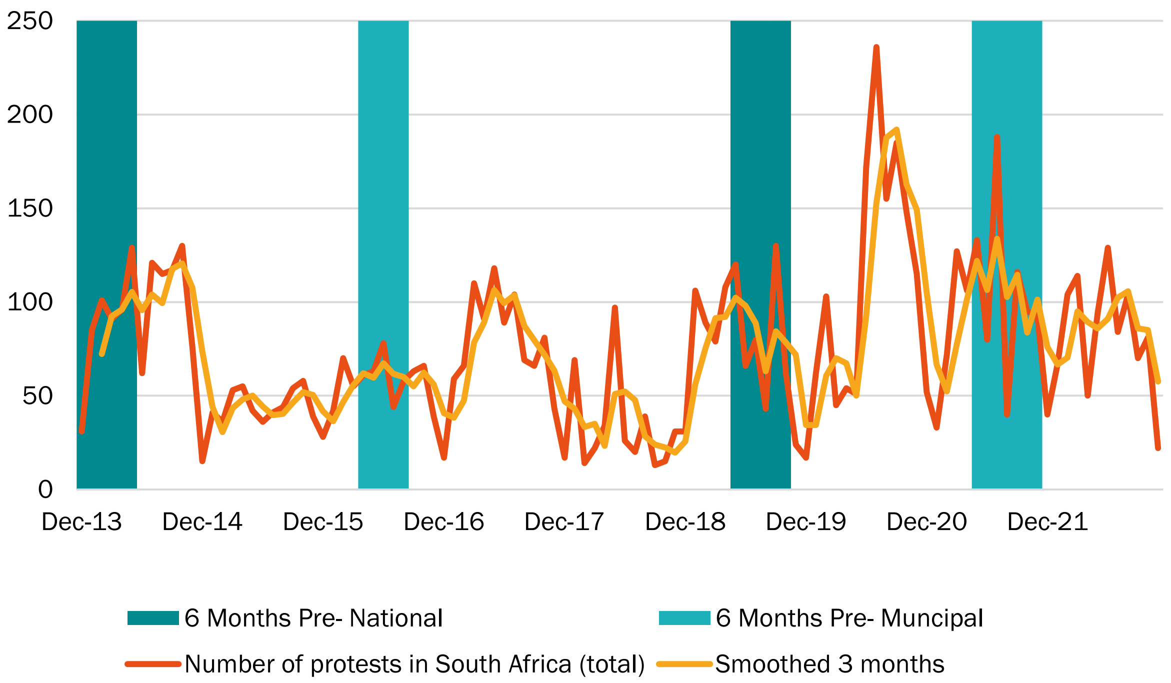
Load-shedding Stages



Source: EskomSePush, Eskom, Metals Focus

A second factor which weighs heavily on the ability of the gold sector to contribute positively to the economy is the increase in crime and the deterioration in security. While Minerals Council South Africa has highlighted the disruption, loss and cost to the mining industry, the pervasiveness of crime and the growing lawlessness in South Africa can impact the entire value chain. The extent and level of crime are widespread – from gangs attacking mining shafts to community unrest in an effort to gain employment. Meanwhile, the exploitation of gold's zero-rated export status precipitated various measures by the authorities, which, while curbing illegal activity, created challenging operating conditions for legitimate operators across the entire value chain. On a separate note, both companies and the public are engaging private security companies to protect people and assets, performing functions that used to be the preserve of the police. It is estimated that the private security sector employs around 500,000 people, surpassing the employment rate of the mining industry as a whole.

Protests recorded in SA



Source: Econometrix, ISSafrica

Importance of Policy Stability

South Africa is approaching its thirtieth year of democracy, which will be celebrated in 2024. This also coincides with the next national election. Since the birth of democracy in 1994, it has had four presidents, two of whom did not serve their full term. While this may be perceived as disruptive and speaks to political infighting, it is also testimony to a robust constitution. The African National Congress has been the ruling party since 1994. While the country faces several developmental and economic challenges, it has benefited from largely stable policies.

Within the mining sector, the government aims to transform the mining industry by implementing the Mineral and Petroleum Resources Development Act (MPRDA). While the process of developing this Act has not been without its challenges, the constitution and legal systems are robust. Companies can, whether it be through bilateral engagement, industry lobbying or the judicial system, challenge the institutions responsible for the policy and legal framework. In such a manner, businesses are able to help shape the outcome for their sector.

However, the widely reported corruption and the extreme inequality that persist in the country are leading to increased protests and civil unrest, destabilising the operating environment and impacting the appetite for foreign investment. While demonstrations are not necessarily linked entirely to Eskom, the deterioration of services in the country due to misappropriation and organised crime (as alluded to earlier) is further challenging the operational environment in South Africa. Notwithstanding this, business within the gold sector continues to navigate these challenges and engage actively with the government in trying to curb activities, such as money laundering and other related activities.

Regulation of Precious Metals

As in most countries, in South Africa the state can be regarded as the main custodian of unmined mineral and metals on behalf of its people. The South African government can confer custodianship onto a company following an application process. The Minister of Mineral Resources and Energy issues different types of licences and rights to applicants on a 'first come, first served' basis and upon satisfactory demonstration of the applicant's ability to comply with the financial, technical, environmental, safety, health and socio-economic development requirements set out in the legislation.

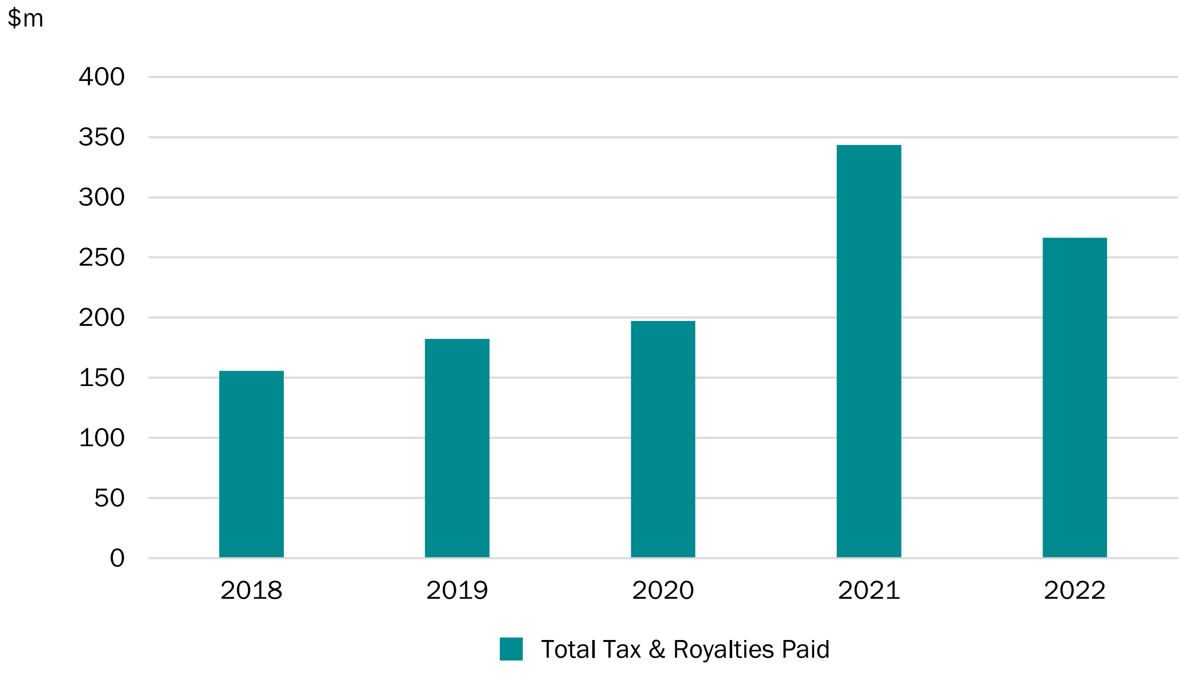
One of the most important pieces of legislation in the context of this Spotlight report is the Mineral and Petroleum Resources Development Act 2002 (MPRDA), which came into force on 1st May 2004. Other important legislation includes the Mine Health and Safety Act 1996, the Mining Titles Registration Act 1967, the Mineral and Petroleum Resources Royalty Act 2008, the Precious Metals Act of 2005, the National Environmental Management Act 1998 and the National Water Act 1998. While the Acts referred to are concerned predominantly with the mining of all metals, the Precious Metals Act of 2005 provides a framework for all players across the precious metals value chain involved in the extraction, processing, beneficiation and sale (local and export) of all precious metals.

The South African Diamond and Precious Metals Regulator (SADPMR) was established as part of the Diamonds Act. The SADPMR overseas the movement and processing of diamonds, gold and platinum group metals in South Africa. The entity is classified as a schedule 3A public entity and is funded through state grants via the Department of Mineral Resources and Energy. The Precious Metals Act of 2005 repealed the Mining Rights Act of 1967 and is now the principal Act governing the precious metals industry in South Africa. The ambit of the Act and definition of precious metals according to the Act includes gold and the platinum group metals.

The objectives of the SADPMR are predominantly to ensure that South Africa's precious metal resources are exploited and developed in the best interests of the people of South Africa, and to promote equitable access to, and local beneficiation of, South Africa's precious metals.

The Precious Metals Act prohibits the possession, acquisition, use, and disposal of precious metals in unwrought and semi-fabricated forms as defined. It then proceeds to provide for licenses and permits relating to the possession, acquisition, use, and disposal of precious metals in unwrought and semi-fabricated forms as defined, and their administration in terms of application, issuance, renewal, endorsements and cancellation.

SA Gold Majors' Contribution to Government



Source: Company reports

The licenses that are governed by the Act include:

- Refining Licence (for melting, smelting, refining or processing of precious metals in unwrought and semi-fabricated forms);
- Beneficiation Licence (for fabrication, use, manufacturing of precious metals in unwrought and semi-fabricated forms);
- Jeweller's Permit (for manufacture of jewellery from semi-fabricated precious metal);
- Special Permit (for scientific and test work, assaying, research in connection with precious metals in unwrought and semi-fabricated forms);
- Import Permit (to import precious metals in unwrought and semi- fabricated forms as defined) and an Export Approval (to allow for the export of precious metals in unwrought and semi-fabricated forms as defined subject to the applicant entitled to be disposing of precious metals in unwrought and semi-fabricated forms committing to or making provision for equitable access to such precious metals for local beneficiation).

The Act also makes provision for the prescribed documentation required for the transport or conveyance of precious metals in unwrought and semi- fabricated forms. While the Act does not make provision for a precious metal dealing or trading licence as such, but does provide for linkage to the Authorised Dealer in terms of the Reserve Bank Act, 1989, under which an Authorised Dealer is entitled to buy and sell precious metals in any form. These Authorised Dealers are usually banks or other Authorised Foreign Exchange dealers designated as such under the Reserve Bank Act, 1989.

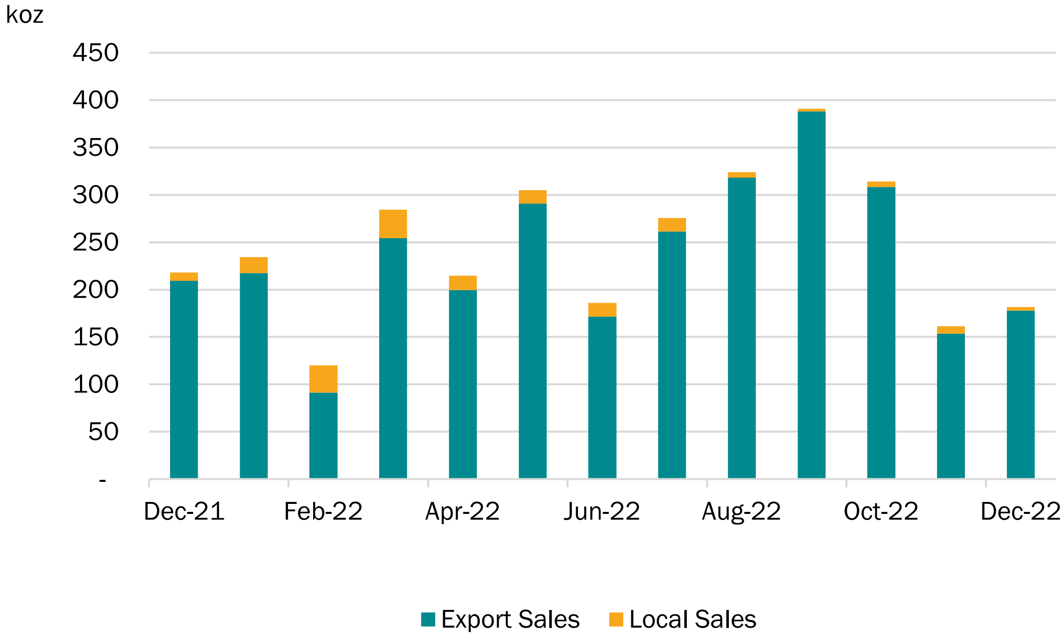
The Act also outlines the requirement to maintain and submit registers of transactions of precious metals in unwrought and semi-fabricated forms mined and sold, received/purchased, sold/disposed of, or worked with in accordance with the licence or permit held. The balance of the Act deals with policing matters such as Inspections, a profiling database for precious metals mined or imported, offenses and penalties for transgression of the Act or conditions of a licence or permit.

Potential Revisions to the Act

The SADPMR via its parent department, the Department of Mineral Resources and Energy (DMRE) has recently embarked on some revisions to the Act, which will be subject to a full consultation process. The key focus areas will be to bolster the transformation and beneficiation aspects of the Act. The Regulator plans to publish revisions for consultation this year, before having revisions enacted in 2024, depending on the extent of the feedback from relevant stakeholders.

According to the SADPMR, beneficiation promotion will be enhanced under section 12 of the Act, which deals with the commitment to satisfying local demand for domestic beneficiation before qualifying for export. This provision will be extended to gold in unwrought and semi-fabricated forms, from just PGMs at present. There are proposals to ensure that unbeneficiated materials that can be beneficiated in the country only leave South Africa after first being offered for sale in South Africa. There are also plans to extend the validity of the Jeweller's Permit from 5 to 10 years. There is also a proposal to provide for a New Entrant / Student permit with minimal application and compliance requirements to promote new entrants into jewellery manufacture and fabrication of precious metals in general. The BEE provisions are the area of the MPRDA which will have an impact on precious metals legislation if and when attended to by the DMRE.

Export versus Local Gold Sales



Source: Department of Mineral Resources and Energy

Domestic Reverse Charge Regulations for VAT

In 2021, the South African Revenue Service (SARS) suspected VAT refund fraud was being perpetrated involving illicit gold trading. The illicit gold was believed to have been brought into the supply chain with VAT then unlawfully being claimed using falsified documents.

In the normal order of business a VAT registered supplier will charge VAT to a buyer. The buyer will pay VAT and the seller will declare and pay the VAT to SARS. The buyer can then claim the VAT as an input tax deduction. However, if the gold was acquired and no VAT paid, then SARS would be out of pocket. The new regulation aims to leave SARS in a neutral cash flow position.

The VAT domestic reverse charge (DRC) on valuable metal was introduced in the Regulation published in Government Gazette 46512 on 8th June 2022 and became effective from 1st August 2022. The DRC places the accounting liability on the recipient. The buyer is required to self-account (reverse charge) the VAT on the procurement of gold before it is entitled to claim the corresponding input tax deduction. While the change has been welcomed by most participants in the gold value chain, concerns have been raised that the regulations allows for players with a far smaller balance sheet to enter the market.

Chapter 3

- South Africa was the fourth biggest gold producer in Africa in 2022 and ranked 13th in the world with output of 93t.
- South African gold deposits contain 5% of global reserves and 36% of those in Africa.
- Gold miners in South Africa are investing in solar power facilities to break their reliance on Eskom and reduce carbon emissions.

Mining

Introduction

South Africa has been a major contributor to global mined gold production since the discovery of gold at Witwatersrand in the late 19th century. Gold output from South Africa peaked in the early 1970s at more than 1,000t per annum. At this point the country's gold mining industry was responsible for more than 70% of global production. Since then, output from South Africa has been gradually declining and it was surpassed as the world's biggest gold producer by China in 2007. However, South Africa remains a major gold mining nation, with production of 93t in 2022, placing it as the 13th biggest gold producer globally, and 4th largest in Africa last year.

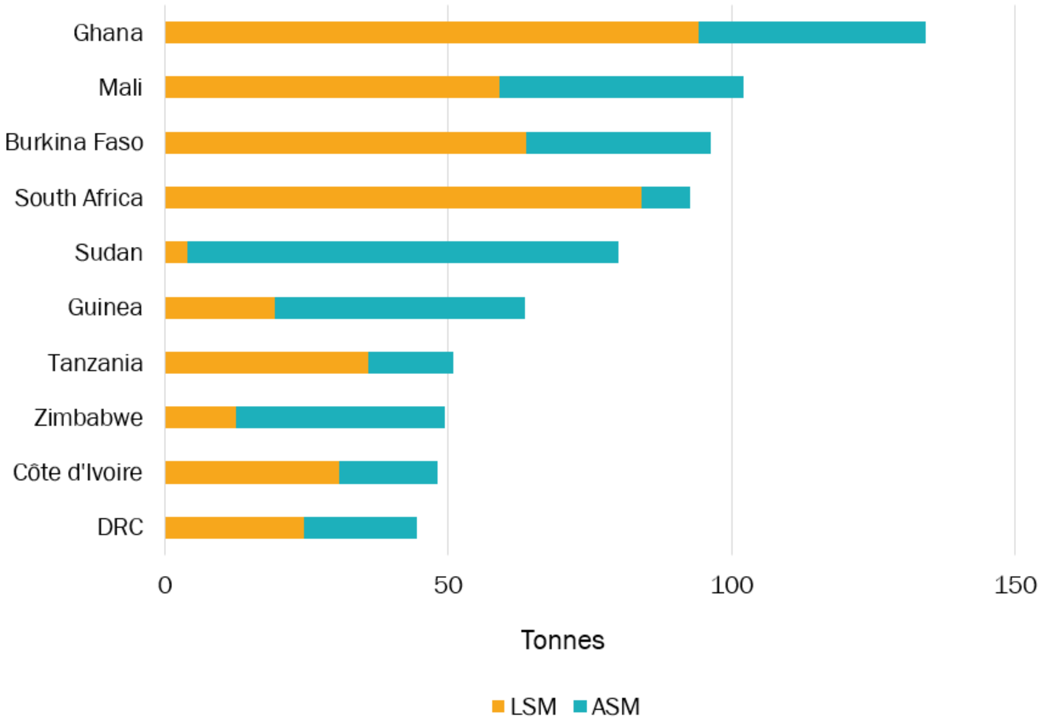
Gold Production

Despite having lower gold output than Ghana, Mali and Burkina Faso in 2022, South Africa only sits behind Ghana in terms of gold production from large-scale industrial mining in Africa. Ghana, Mali and Burkina Faso all have much larger artisanal and small-scale mining (ASM) sectors than South Africa. In 2022 ASM production accounted for 42%, 34% and 30% of gold output from Mali, Burkina Faso and Ghana respectively, compared to 9% for South Africa.

The South African gold mining industry is dominated by three major companies; Harmony, Sibanye-Stillwater and Gold Fields. These three organisations produced 76% of the country's total output in 2022. Harmony is the biggest gold miner in South Africa with production of 41t last year. It operates eight underground mines, one open pit mine and four tailings re-treatments facilities in the country. Platinum group metal (PGM) mines in South Africa and the US form the biggest part of Sibanye-Stillwater's business. However, the company also operates four gold mines in South Africa and is the majority owner of DRDGOLD, which operates two tailings re-treatment facilities. In 2022 Sibanye-Stillwater produced 19t from its South African gold operations. This was down from 33t the previous year as Sibanye's mines were impacted by strikes in H1.22. Gold Fields only has one operation in South Africa, South Deep. However, this is the biggest gold mine in the country producing more than 10t in 2022.

As mentioned earlier, an estimated 9%, or close to 9t, of South African gold output came from the ASM sector in 2022. Very little information is available on gold volumes produced from this source in South Africa so this figure should be considered a high-level estimate. Workers in the ASM sector are commonly referred to as zama-zamas in South Africa. These miners illegally extract gold bearing ores, generally from abandoned mine workings, and are often linked to other forms of criminality. Despite contributing a meaningful amount to South African output ASM production from South Africa is relatively small on a global scale, sitting outside the top 25 ASM gold producing countries.

Top 10 African Gold Producers



LSM - Large-scale Mining
ASM - Artisanal and Small-scale Mining

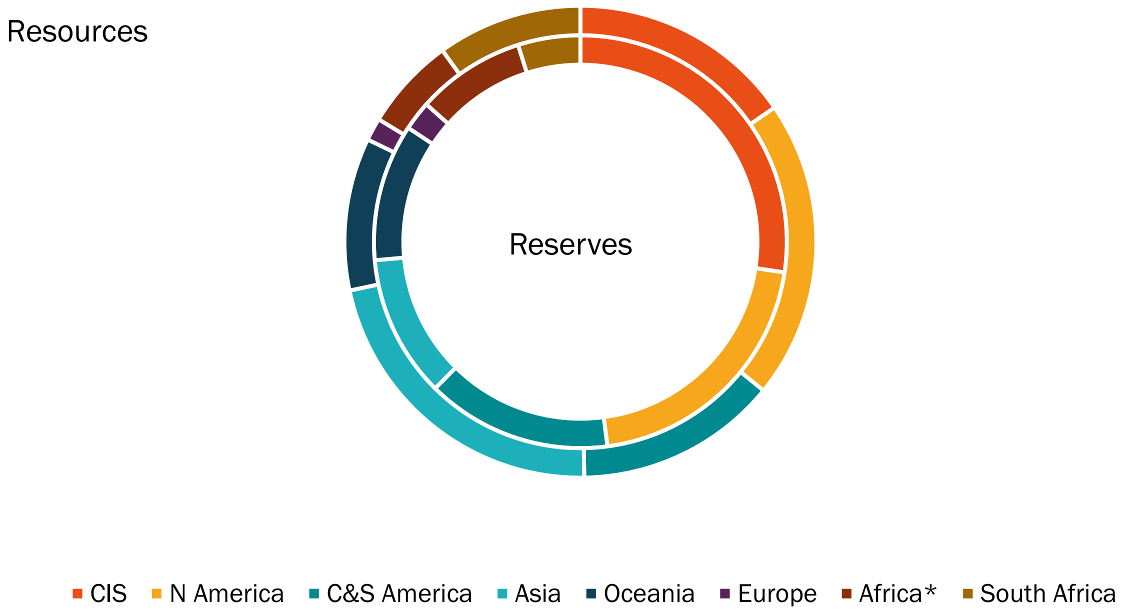
Source: Metals Focus

Reserves & Resources

As of end-2021 South Africa held 2,725t of contained gold in reserves. This represents 5% of global gold reserves and 36% of total African reserves. The average reserve life of South African mines at this point in time was 16.2 years, longer than the global average of 14.4 years. This highlights the long mine lives of South African underground mines compared to shorter- lived operations elsewhere in the world.

Identified resources, excluding reserves, in South Africa contained an additional 12,767t of contained gold at the same point in time. This accounts for 10% of global gold resources and 61% of African resources. Reserves and resources identified in South Africa demonstrates that there is still sufficient gold remaining in the ground to support current production levels in the short-term and also growth over the longer-term.

Share of Global Reserves and Resources



*Excluding South Africa.
Resources presented exclude reserves, all figures as of end-2021.

Source: Metals Focus

ESG

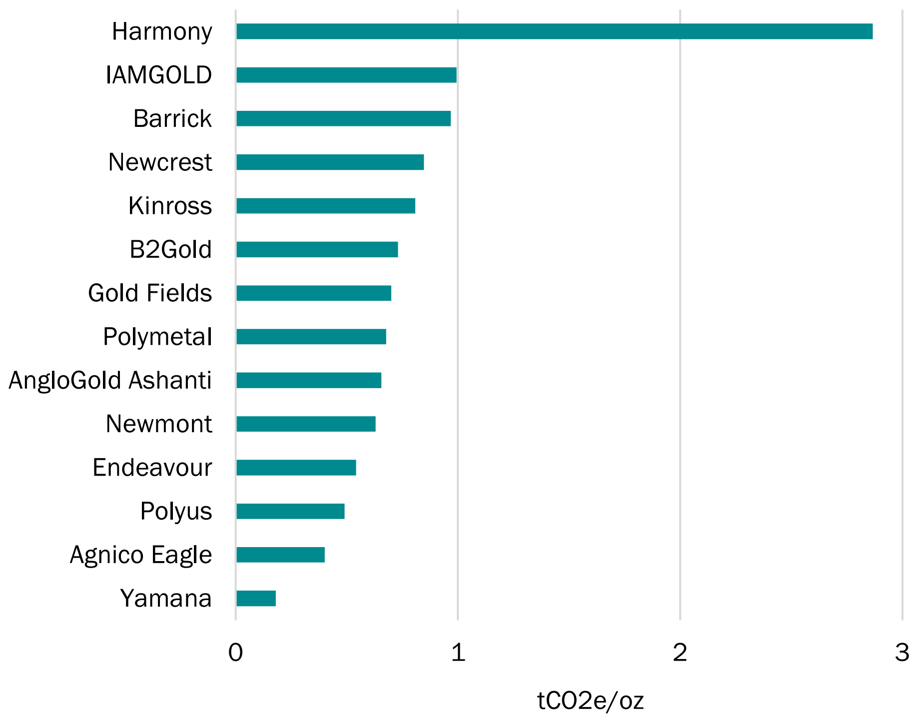
Environmental, Social and Governance (ESG) issues are of growing importance to all mining companies. Gold miners operating in South Africa are faced with a number of challenges specific to the country alongside more general ESG concerns faced by all gold mining companies.

Eskom is the national electricity provider in South Africa, which generates the vast majority of its electricity from coal-fired power stations. This is the most carbon intensive source of electricity and leads to South African gold miners having more carbon intensive production compared to their peers elsewhere in the world. However, producers have begun to address this issue by investing in large solar power plants at their sites to reduce their reliance on Eskom and associated emissions. For example, Gold Fields commissioned a 50MW solar plant at South Deep in August 2022. Meanwhile, Harmony is currently building 30MW of solar capacity and plans to add another 137MW by 2025.

The gold-bearing ores being exploited in South Africa generally occur in narrow reefs that extend deep below the surface. As a result, the majority of gold mining in South Africa is undertaken in deep, narrow, underground mines. This makes mechanisation difficult and therefore mining is more labour intensive compared to most other major gold mining areas. Meanwhile, seismicity, heat and humidity all increase with depth, making working conditions challenging. This combination of factors means that injuries and fatalities are more common at South African gold mines compared to most other parts of the world, despite strict health and safety measures put in place by operating companies.

The positive contribution of gold mining in South Africa to the country as a whole and local communities should not be overlooked when considering ESG issues. For example, according to Minerals Council South Africa, the gold mining industry directly employed 93,841 people in 2022, paying these employees a total of 28.9Bn rand over the year. Gold miners also paid 608m rand in royalties to the government last year.

Scope 1 & 2 Emissions Intensity of Major Gold Producers in 2021



Source: Company Reports, Metals Focus

Mining in the SADC

South Africa is by far the biggest gold producer in the Southern African Development Community (SADC). In 2022 South African output accounted for approximately one-third of the total gold production from this block of countries. However, there are several countries in the SADC which produce a significant amount of gold.

Tanzania is the second biggest producer in the SADC, after South Africa, with output of 51t in 2022. The majority of this production comes from three major mines in the country. Geita, owned by AngloGold Ashanti, North Mara and Bulyanhulu, both owned by Barrick. These three mines had combined output of 33t in 2022, with the balance of Tanzanian production coming from a number of smaller industrial mines and the ASM sector.

Zimbabwe produced an estimated 49t of gold in 2022. Almost three- quarters of this came from ASM producers. Two of the biggest large-scale mines in the country are Kuvimba Mining's Freda Rebecca and Caledonia Mining's Blanket, which produced 3.4t and 2.5t respectively last year. The Democratic Republic of the Congo (DRC) had gold output of 45t last year, of which 20t is estimated to have come from the ASM sector. However, the biggest contributor to gold production in the DRC is Kibali, a JV between AngloGold Ashanti and Barrick. This is the biggest gold mine in Africa and produced 23t in 2022.

Chapter 4

- Despite mining gold since 1886, pure gold refining only started 50 years later.
- Much of the refining of gold mine supply takes place at the Rand Refinery, the region's only LBMA Good Delivery operation.
- There are a range of licensed refiners vying for gold recycling that is notably smaller in comparison to the primary sector.

Recycling and Refining

Introduction

Even though the first discovery of gold in the region is said to have been in 1852 on Paardekraal farm, Krugersdorp and the prospecting of the gold- bearing reefs centred in what is today known as Johannesburg from 1886, it was only in 1922 that South Africa started to refine gold from low-quality ingots (doré) to the benchmark standard of the time. Previously, Johnson Matthey and Rothschilds further refined gold in the UK they received from South Africa. As indicated in the mining chapter, primary gold production amounted to around 93t in 2022, ranking the country 13th globally. Secondary refining in South Africa is far more modest, which Metals Focus estimate at around 10-12% of primary supply. Secondary supply is far more diverse than the primary sector, with scrap gold sourced from various processes, including jewellery, industrial products, dental items, and coins.

Primary Metal Refining

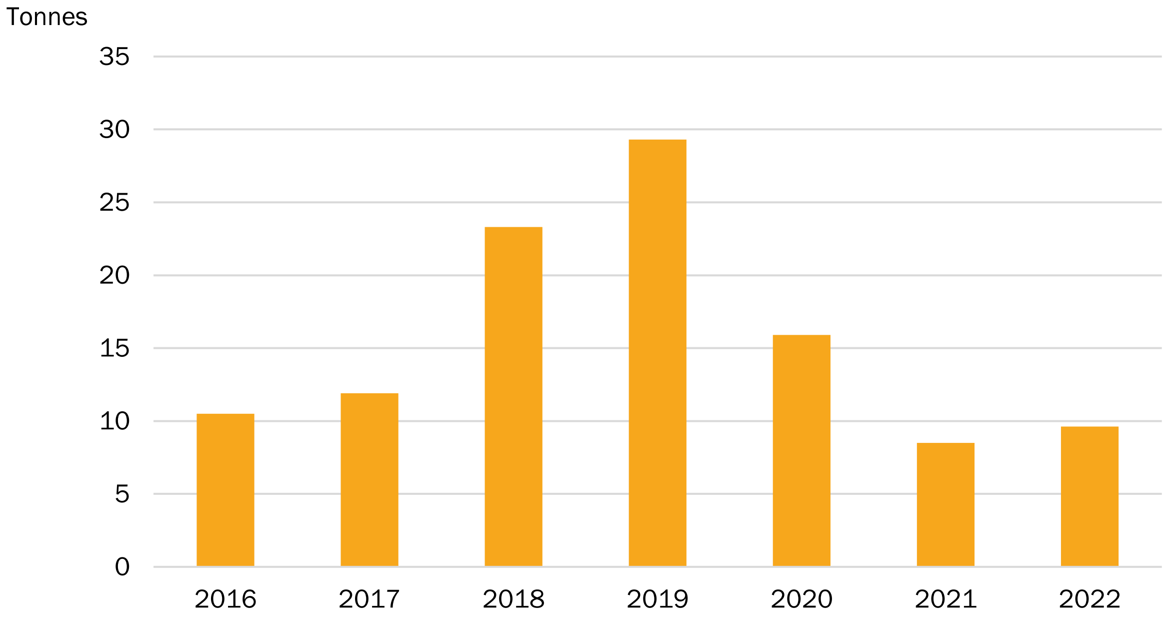
For much of the past 100 years, gold mined in South Africa has been refined by a single refining and smelting complex, the Rand Refinery based in Germiston. The company treats both doré and low grade mine by- products. This single-site operation also includes coin and bar production, that encapsulates the Krugerrand gold bullion coin programme (which is discussed in Chapter 5). It is the region's only LBMA-approved gold refiner.

Established by the South African Chamber of Mines (now the Mineral Council) in 1920, its shareholding structure consists of the country's largest gold mining companies: AngloGold Ashanti (42.41%), Sibanye Gold (33.15%), DRDGold (11.30%), Harmony Gold Mining (10.38%) and Gold Fields Operations (2.76%). In addition, many mining companies that produce gold as a by-product (such as the PGM mining companies) would contract with the Rand Refinery to produce LBMA-accredited gold bars.

Sourcing doré, be this from domestic or elsewhere on the continent, follows the same long-standing KYC (Know Your Customer) and KYP (Know Your Product) standards as are observed in other international gold markets. In the context of the Rand Refinery, adherence to key standards includes:

- LBMA Responsible Gold Guidance (and also the Responsible Silver Guidance where applicable);
- OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas;
- US Dodd-Frank Act.

South African Gold Recycling



Source: Metals Focus

Secondary Metal Recycling

The feedstock for secondary gold is diverse. It can range from low-grade mine material, such as slag and other mine process waste streams, to recycling generated from the manufacturing of jewellery, coins, dentistry, industrial products, as well as jewellery sold back by consumers. In addition, unsold jewellery, returned by manufacturers in South Africa or by a South African-based retailer, gold recovered from end-of-life consumer electronics and industrial products and the dental sector all form part of the recycling landscape. For Metals Focus supply and demand models, we do, however, limit the definition of recycled gold to capture metals recovered from fabricated products.

By its very nature, estimating the volume of recycled gold in any market can be difficult. However, Metals Focus' latest estimates suggest this could reach around 10t in 2023 in South Africa, reflecting the jump in Rand gold prices to new highs, as well as the uncertain economic backdrop, which is likely to see a jump in distress selling by the public.

Over the past ten years, the South African Precious Metals and Diamond Regulator has issued around 182 refining licences. Within South Africa, more than 80% of refining companies are based in Gauteng, with the North West Province following in the distance with around 5%. The issuance of refining licences aligns with the country's objectives to monitor the processing and manufacturing of precious metals and related products while maintaining control and governance to avoid unlawful trading, tax evasion and money laundering.

Due to the structure of the Precious Metals Act, many companies that hold refining licences will not be directly involved in refining secondary material as a core business. Instead, they will hold this licence to allow for processing material into an intermediate product or as part of the refining of material within a broader fabrication objective. Many licensee holders will also have a beneficiation licence. Consequently, the refining capacity, technology and structure are aimed mainly at serving the needs of the operation to process metal for their own further use, or for processing at the mine site to an intermediate product that will be further refined.

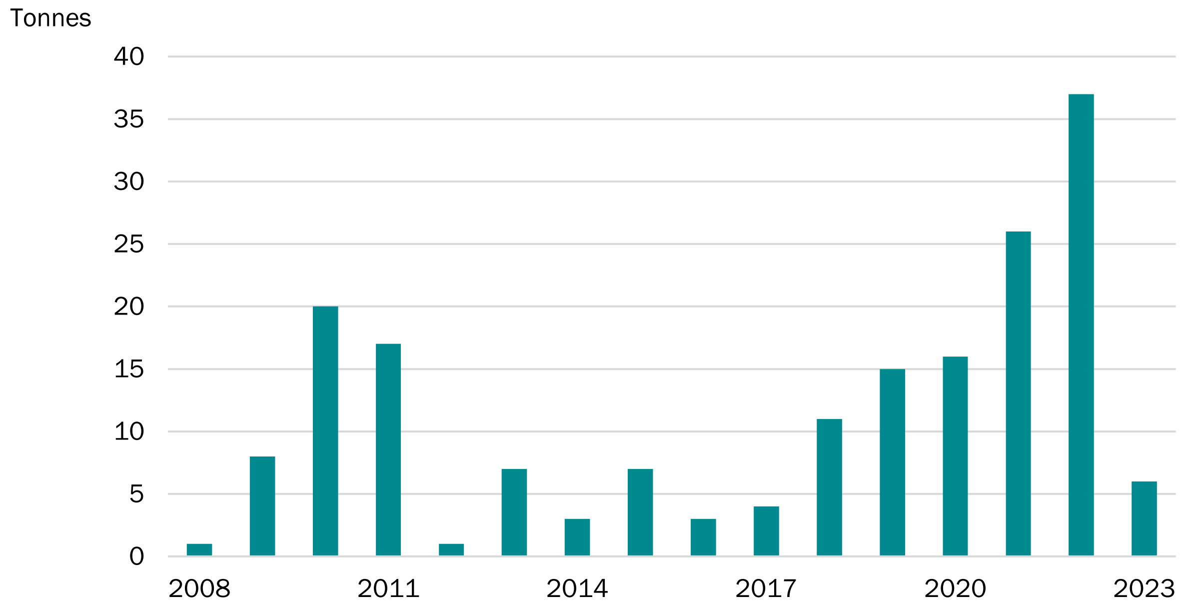
In essence, the secondary recycling market in South Africa can be segmented into three tiers. Given its size and global reach, the Rand Refinery stands apart from other recyclers and refiners in South Africa, although recycling accounts for an extremely small share of its overall feedstock. There is a second/mid-tier of refiners which includes the likes of Metal Concentrators which runs a plant in the OR Tambo International Airport Special Economic Zone (ORTIA SEZ). This is one of the first SEZs linked to a port of entry that formed part of the government's SEZ programme in the early 2000s. The aim of the SEZs is to support local beneficiation of precious metals that are exported via air freight, through cashflow benefits on import VAT, savings on import duties and corporate income tax incentives.

The second tier of refiners also extends to include SA Precious Metals, Kusasa Refining, and Cape Precious Metals. A number of these have installed new processing technologies to help meet their obligations against international standards, including those governing chain of custody. For example, Metals Concentrators operate a batch processing technology, and blockchain-enabled QR codes, which benefits the traceability and provenance of their outturn.

Each has also developed strategies which allows them to serve both local and overseas markets. For example, SA Precious Metals offer gold chemical products that compete with international companies. Most of these mid-tier companies have also upgraded their facilities to ensure that recycled material sourced are digitally documented and processed.

The third tier represents smaller refiners or companies that are mainly focused on refining for their own purposes (this includes refining licenses issued for mining houses processing gold to intermediate form for further refinement by, for example, the Rand Refinery or mid-tier companies.

Refining Licenses Approved Since 2008



Source: South African Precious Metal and Diamond Regulator

Chapter 5

- The Krugerrand is South Africa's most renowned gold product, with an estimated 60 million in circulation.
- There are only limited Special Economic Zones (SEZ) targeting the development of precious metals products.
- Outside of compliance with local legislation a number of businesses in the gold value chain submit to international benchmark standards.

Jewellery & Retail Investment

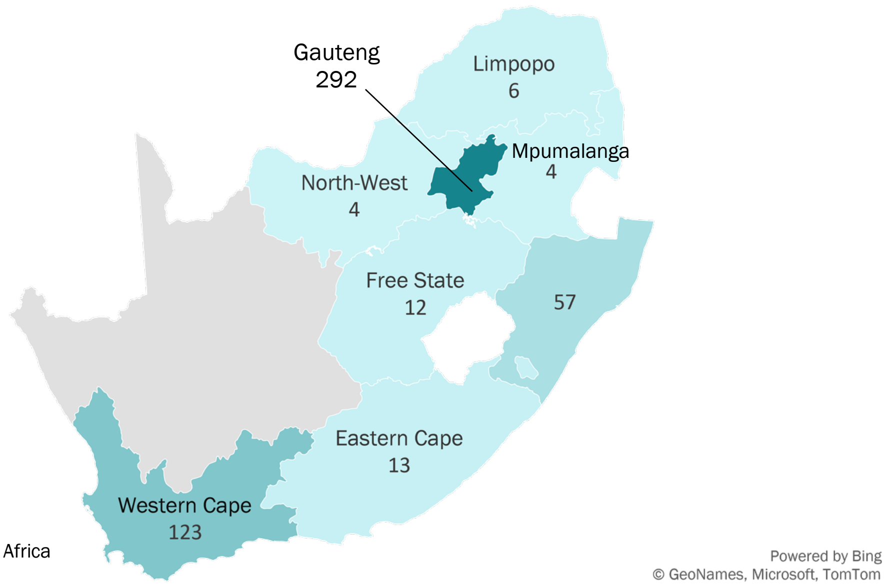
Introduction

The South African gold jewellery market is extremely modest in relation to its mine production and even recycling capabilities. Given the size of the population and the economic challenges resulting in around one-third of the eligible workforce being unemployed, the market for luxury goods and investment products is quite modest. While the country has, over the years, developed several programmes to target export jewellery markets, success has also been limited. The country's gold bullion coin programme, in sharp contrast, has been one of long-term success for South Africa. First struck in 1967, during the past 13 years alone almost 470 tonnes of gold has been used in the gold Krugerrand programme. (More recently, a silver Krugerrand and platinum bullion coin series have been introduced.)

Jewellery

According to the Jewellery Council of South Africa its membership, and therefore participation of South Africans within the gold jewellery fabrication sector, contracted by 2% year-on-year in 2022 due to COVID. From a longer-term standpoint, the Gauteng province has taken the lead in jewellery manufacturing, with 57% of Jewellery Council Members based there. While the number of participants has been helped by the authorities establishing Special Economic Zones (SEZs), and other jewellery development programmes supported by large companies (as part of their social responsibility programmes), the success and sustainability of these initiatives have been varied, but mostly modest. Examples of the SEZs are the Jewellery Manufacturing Precinct (JMP), adjacent to the OR Tambo International Airport in Johannesburg, and the Ekurhuleni Jewellery Project housed within the Rand Refinery Jewellery Village. Aside from manufacturers, the Jewellery Association also represents 140 wholesalers, importers and approximately 1,000 retailers.

Number of Jewellery Manufacturers in South Africa by Province



Source: Jewellery Council of South Africa

Bars and Coins

The South African Mint, a subsidiary of the Reserve Bank, produces the 22-carat gold bullion Krugerrand coin, which is distributed and marketed by Prestige Bullion, a joint venture between the Rand Refinery and the South African Mint. The vast majority of gold Krugerrands are sold overseas and especially in Germany, where the Krugerrand is arguably the most widely recognised investment gold product. In 2022, a 24-carat gold bullion coin programme was introduced in the form of the “Big 5”, targeting overseas markets where 24-carat coins are popular, including in the US.

Closer to home, the Krugerrand dominates the South African retail gold investment market, this being the only gold investment product that is zero-rated for VAT. Overall though, local demand remains extremely modest, although it is worth noting that investors there have access to private vaulting and safety deposit box storage (which naturally extends beyond precious metals). Historically, this was dominated by Standard Bank, before IBV International Vaults, in 2022, acquired their safety deposit vault facilities.

Government Support Structures

Over the past three decades the South African government has maintained and enhanced several initiatives to bolster the country’s industrial and manufacturing capabilities. Several of these initiatives attempt to capture the abundance of its minerals and promote, enable and facilitate downstream beneficiation and fabrication, for either local or export consumption. We provide details of some of the key structures most applicable to the gold sector.

Special Economic Zones:

SEZs within South Africa are geographically designated areas set aside for specifically targeted economic activities to help promote national economic growth and exports by using support measures to attract foreign and domestic investments and technology. Some benefits operating within an SEZ includes preferential corporate tax and /or tax relief, a building allowance, custom-controlled areas offering customs and excise benefits. There are eleven SEZs listed on the Department of Trade, Industry and Competitions website. A United Nations conference On Trade And Development reported that in 2019 SEZs in South Africa employed 110,000 people. However, of these SEZs only one specifically focuses on the beneficiation of precious metals (OR Tambo SEZ), while two others focus broadly on metals and metallurgical beneficiation in general.

Special Economic Zones

SEZ	Region
Atlantis SEZ	Western Cape
Nkomazi SEZ	Mpumalanga
Coega IDZ	Eastern Cape
Richards Bay	KwaZulu Natal
East London	Eastern Cape
Saldanha Bay	Western Cape
Dube TradePort	KwaZulu Natal
Maluti – A- Phofung SEZ	Free State
OR Tambo SEZ	Gauteng
Musina/ Makhado SEZ	Limpopo
The Tshwane Automotive Special Economic Zone (TASEZ)	Gauteng

Source: South African Department of Trade and Industry

Jewellery Incubators:
The Small Enterprise Development Agency (Seda) was established in 2004 through the National Small Business Amendment Act. It is an agency of the Department of Trade and Industry aimed at helping small business in line with the government's national development objectives. Seda offers financial and non-financial assistance to small, medium and micro enterprises (SMMEs). This includes the recently introduced Silver and Gold Mentorship Programme, which is a partnership between the Rand Refinery, the Ekurhuleni Jewellery Project, jewellery retailer NQ Jewellers, and the South African Diamond and Precious Metals Regulator. Seda also strives to create a shared, standardised national delivery network. It forms the reporting body for all government funded incubators. While there are several private incubation initiatives SEDA oversees and supports 110 incubators and 58 incubation centres across South Africa. Of these six are focused on jewellery manufacturing.

Incubators

Centre	Province
Seda Limpopo Jewellery Incubator	Limpopo
Seda Platinum Incubator	North West
Global Jewellery Academy	Gauteng
Northern Cape Diamond and Jewellery Incubator	Northern Cape
Ekurhuleni Jewellery Incubator	Gauteng
Motheo Rapid	Free State

Source: Small Enterprise Development Agency

Mintek:
Mintek is a research and technology organisation in South Africa that serves the industry through research, development and mineral technology transfer. Mintek has some 780 permanent staff and an annual budget of R390m. It is seen as a Schedule 3B entity. (Schedules 3B and 3D are referred to as government business enterprises.) These entities generate income, but may be either substantially self-funded or heavily government funded. Mintek receives about 30% of its funding from the government. In the 1980s and 1990s, South Africa, through Mintek played an important role in the development of many gold and platinum jewellery alloys, resulting in the accumulation of a strong expertise and know-how at Mintek, which holds the following active patents.

- Gold jewellery alloy systems
- 18-carat gold with increased hardness
- 22-carat gold with increased hardness
- Spangold™: a 14-carat gold alloy containing 10% copper and 5% aluminium. It is a shape memory effect alloy, which recovers its original shape when heated above a certain temperature.

Trade Agreements

South Africa has trade connections and partnerships with global markets with preferential access to key export markets. Aside from South Africa being a member of the World Trade Organisation there are two key other agreements which offer benefits to the gold fabrication market.

The first is the African Growth and Opportunity Act (AGOA), which is a trade agreement between Africa and the US that allows companies enhanced market access and duty-free exports. Currently, this agreement has been used with some success by jewellery manufacturers to access North America. Products from South Africa must meet specific rules of origin in order to qualify under this agreement, notably that: only products directly imported from the beneficiary country qualify; at least 35% of the value of the item must have been added in the beneficiary country.

While the European Union-Southern African Development Community Economic Partnership Agreement

(EU-SADC EPA), a free trade agreement between the EU and South Africa offer similar benefits to the AGOA agreement, participants interviewed for this Spotlight found that the EU market was already well served by the local industry.

Government, Industry and Self-Governance

While the government offers a legislative framework within which the gold industry in South Africa can operate, the international nature of the gold market requires companies to demonstrate their ability to compete globally. Responsible stewardship and business ethics are also key, giving business social license to operate both locally and internationally.

Aside from South Africa being a member of the World Trade Organisation, two other key agreements offer benefits to the country's gold industry. As outlined in Chapter 2, the refining and fabrication of gold are mainly regulated through licenses that are issued under the SADPMR Act. Gold trading is regulated by the Reserve Bank Act 1989, but linked through the Precious Metals Act, 2005 and the SADPMR in their reference to Authorized Dealers.

Apart from government regulations, many market participants have also joined international governance bodies, and so adhere to self-regulating procurement codes, including auditing protocols. In particular, many mines in South Africa are members of the World Gold Council, while the Rand Refinery is accredited by the LBMA. Another body is the Responsible Jewellery Council (RJC) which was founded in 2005 by 14 member organisations. The RJC developed standards and certifications for the jewellery industry to provide supply chain integrity and sustainability in the global jewellery and watch industry. According to the RJC website, there are 17 certified members in South Africa. Of these, 12 also hold RJC Chain of Custody certificates, meaning their procurement processes have been independently audited. These include Cape Precious Metals, Kusasa Refining, Metal Concentrators and S.A. Precious Metals.