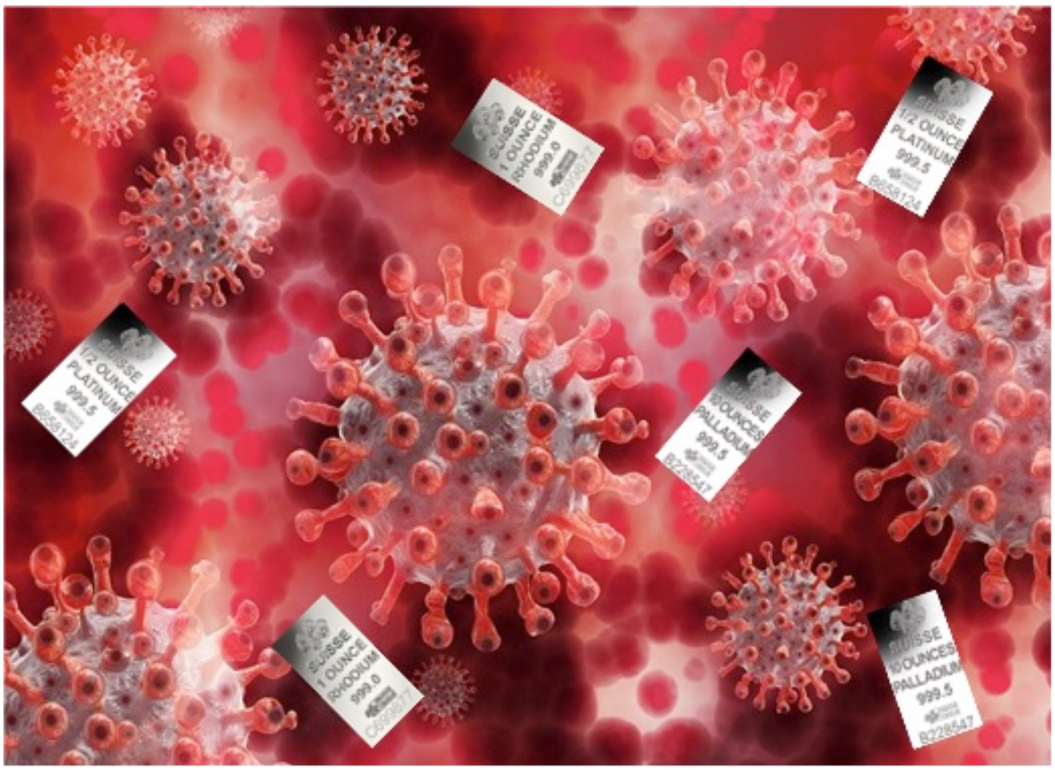
PGMs South Africa

PART 1

PGM forecast 2020 - Introduction

The impact of the COVID-19 pandemic on South African PGM supply, on global supply and ultimately on the price of platinum, palladium and rhodium.



Source: Credit Suisse, Google, Davis

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Introduction

In this review I focus on the impact COVID-19 pandemic has had, and continues to have, on the supply of PGMs from the South African mining industry. In this conversation, I assess the impact of the fall in South African PGM supply on global supply and ultimately on the price of platinum, palladium and rhodium, y-on-y 2020. It should be noted that the global supply of PGMs depends heavily on the South African mining industry. South Africa supplies some 73%, 35% and 82% of global platinum, palladium and rhodium respectively, and consequently is a significant contributor to the global PGM industry.

The COVID-19 pandemic has severely impacted both the supply and demand for PGMs. This impact is due to the lockdown and temporary closure of mining and industrial operations by governments to curb the spread of COVID-19. In addition, and simultaneously, COVID-19 has had a severe impact on the global financial economy sending many countries into economic recession. In this regard, supply and demand as well as financial destruction represents a worst-case scenario for any chance of global consumer growth in the short to medium term.

Turning to the PGM industry, key supply and demand questions that arise among others are:

- By how much and for how long?
- By how much will the primary supply of PGM from South Africa fall and hence global supply fall y-on-y in 2020?
- Similarly, by how much will global demand decline y-on-y in 2020?
- And, will the market balance of platinum and palladium be favourable to support current prices?

In compiling this review, I have had discussions with well-known senior PGM analysts, mining executives and reviewed the latest published research from Johnson Matthey, Metal Focus and SA Oxford and mining reviews.

It should be noted that in the COVID 19 environment the complexity of any y-on-y 2020 forecasting is heightened and fraught with a myriad of changing global economics and environmental dynamics to name but a few. Even China has indicated that it will not publish its 2020 GDP forecast. In this regard, forecasts in this review come with warnings of high variance and possible downgrades. I am, however, of the view that it is important to note the forecast magnitude and trends of the supply and demand fundamentals in order to gain further insight into underlying market trends.

In this review, I describe in summary the enormous challenges mines face in order to protect their employees and supply from the COVID-19 pandemic. I am of the view that PGM mine production will return to a “new normal”, which will likely exhibit a step-down in the supply base. The impact of the step-down in PGM production is likely to be greatest for rhodium with platinum and palladium being slightly less affected due mainly to a change in mining mix and grade.

The industry view forecasts surrounding the decline in South African PGM mine supply due to losses in production from lockdown and temporary closures range between -17% and -22% and at least more than -20%, y-on-y 2020. I argue that the industry forecasts are, in my view, over optimistic with regard to PGM primary mine supply from South Africa and similarly over optimistic with regard to the implied timing and return to a “new normal” of PGM supply. In this regard, I am of the view that the downside risks associated with lockdown and new safety protocols together with the loss in production associated with an explosion at Amplats’ ACP plant have not been fully taken into account.

Under these circumstances, I am of the view PGM mine supply will decline by between -25% and-35%.
y-on-y 2020. I considered a range of forecasts for platinum, palladium and rhodium to give the reader a sense of the likely magnitude the impact the COVID-19 pandemic will possibly have on South African mine supply in 2020. Furthermore, a range of forecasts, rather than a single figure seems sensible given the complexity and variance of forecasting. I believe that the potential y-on-y range of the decline of between -25% and -35% is not unreasonable as it is in line with Northam Platinum’s calendar year expectations that primary South African supply will likely be down around -30% in 2020, and with Impala Platinum’s latest guideline, which forecasts production rates of between -30% and -40% for May and June. Furthermore, Statistics South Africa has recently reported (11 June) that the production and sales of PGMs for April fell -62% and -34.6% respectively.

Turning to supply and demand fundamentals and market balance, I note that the market balance forecasts differ significantly between the industry players. However, they show an underlying market balance trend for platinum, palladium and rhodium which continues through from 2019 to 2020. This trend is magnified when the risk-adjusted forecasts are included in the comparison.

- Rhodium remains in deficit, which increases with an increase in the risk-adjusted decline in primary supply from South Africa's PGM mines. I would expect upward pressure on the price as supply tightens with the recovery of the auto industry.
- Palladium remains in a much-reduced deficit. I am of the view that the impact of a tighter supply scenario will likely support the price. Going forward, the palladium supply deficit will likely rise again as the auto industry recovers.
- Platinum remains in surplus, however, after significant withdrawals from the ETF investment market at the beginning of the year as investors have returned to the ETF market. Coin and bar investment will likely reduce the market balance surplus significantly. Going forward, platinum demand will accelerate as the substitution of palladium gains momentum, which will in turn support the price.

Looking ahead to the medium term, I am of the view that the South African PGM mining industry will take some time to reach a new normal. In this regard, there is an argument for a likely recovery in primary mine PGM supply from South Africa in 2021 *ceteris paribus*. It should be noted that the mining industry has been adept in confronting adversity in the past.

Supply

PGM supply in a COVID 19 environment

In general, and prior to COVID-19 and the exponential rise the palladium and rhodium price, the market was aware of an increasing risk of a decline in PGM supply from South African mines. The industry had faced numerous challenges in the past caused mainly by the combined effects of prolonged industrial action and electricity shortages, increasing costs and a significant reduction in capital expenditure, to name but a few. Some of the components contributing to this decline may have moderated as a result of higher PGM basket prices.

However, this declining trend has not gone away. The industry now has to deal with the COVID-19 pandemic.

The President of South Africa, Cyril Ramaphosa, declared a national lockdown starting on 26 March. All but essential operations were allowed to continue. PGM opencast and surface processing operations were deemed to be an essential mining operation and were started on 8 April. Underground mines were allowed to resume operations to production levels of 50% on1 May. Mining operations were allowed to return to 100% mining capacity on1 June as a result of the South African Government lowering the COVID-19 related lockdown level.

Clearly, the mines faced enormous challenges to protect their employees and mine supply from the COVID-19 pandemic. Under these circumstances, South African PGM mine supplies have been and continue to be severely disrupted and production is forecast to fall significantly y-on-y 2020.

In this regard, the mines have been proactive and have implemented the Department of Mineral Resources and Energy's (DMRE) COVID-19 regulations. including the recently introduced Code of Practice (COP) as a minimum requirement. The mines have, however, done a lot more, which includes supporting the surrounding communities by way of COVID-19 education, health and hygiene support and food supplies. Screening, contact tracing and testing programmes, as part of the COP, are being introduced into the mines. Apart from the moral considerations, it is in the interest of the mines to do as much as they can to support them and to keep the virus at bay.

It is important to note the mines are working closely with the public health authorities to assess the extent to which the high incidence of asymptomatic cases could be related to community transmission

The industry believes that the biggest threat comes from "imported infections" such as people returning from the hot spots after time off.

The new normal

In the following conversation, I briefly discuss the likely impact on PGM supply surrounding some of the many complex hurdles and operational changes the South African PGM mining industry will likely have to face in a COVID-19 environment.

I am of the view that PGM production will return to a "new normal". This new normal in South African PGM supply is likely, in my view, to exhibit a step-down in the supply base, mainly as a result of a new way of working and mining amid COVID-19. The impact of the step-down in PGM production is likely to be greatest for rhodium with platinum and palladium being slightly less affected due mainly to a change in mining mix and grade.

In my view, the new normal will not only be influenced by working and mining in a COVID-19 environment but is also likely to be influenced by demand trends and PGM basket prices.

Sibanye-Stillwater CEO, Neal Froneman recently commented that ''he was unsure if the firm's underground gold and platinum mines would return to 100% of productive capacity''. Other PGM mining companies are likely to have a similar view.

It is important to note the recent the comments made by Johan Theron, head of Implats corporate relations, who said that mining operations have high fixed costs and are not designed to be idle and have to be run efficiently. With current metal prices and a weak rand, these deep-level mines, at 75% or 80% production, could be just about cash neutral. In this regard, I am of the view that it is likely that some of the mines will have to undergo restructuring should production rates remain low. Under these circumstances, a decline in supply will likely tighten and be supportive of PGM prices, especially rhodium.

Production delays caused by transport of mine workers

It is important to note that mines transport many thousands of workers on the surface and underground to there working places, mostly in confined spaces.

An example of hundreds of miners travelling underground to work may well involve travelling down a vertical shaft, a walk of around a kilometre to take an incline shaft, then hop down multiple legs of chairlifts and then catch a man carriage to reach their workplace. This, all in a high temperature and humid environment. (Note the South PGM mining industry employs around 164 500 workers).

The combined effect of health protocols such as screening, sanitising social distancing will slow the start of shifts. Transport to workplaces will also likely take longer in a COVID 19 environment. Should management not be able to batch and schedule crews further delays could be expected at the waiting places.

Under these circumstances, the face-time, which is the time spent in productive mining will likely decline. In this regard, time lost will depend on circumstances at each mine.

Johan Theron, a spokesman for Impala Platinum, has indicated that "even in a perfect situation with all our workers safely back at work, given the precautionary measures under which we now operate, it is hard to see a return to full operational efficiency". Sibanye-Stillwater CEO, Neal Froneman recently said that the implementation of safety measures would be challenging at deep operations. "What I have assured is that we are not putting commercial issues ahead of the wellbeing of our employees."

In my view, face-times will ultimately reduce and therefore will likely have an impact on PGM production of around 5% to 10%. Note, this figure excludes other factors that may contribute to an additional loss in production.

Production delays caused by incidences of COVID-19

Production was recently halted temporarily at AngloGold Ashanti's Mponeng mine, Impala Platinum's Marula PGM mine and Dwarsrivier chrome mine due to clusters of employees 164, 19 and 30 respectively who tested positive for COVID19. Temporary closure allowed the infrastructure to be deep cleaned and sanitised before operations could resume.

Sibanye-Stillwater recently reported 65 positive COVID-19 cases at Thembelani shaft located at the Rustenburg platinum group metal (PGM) operations. In this regard, Sibanye-Stillwater opted not to halt mining operations but instead shut the specific workplaces to which the cases were traced.

The PGM mining workforce in South Africa is set to double to more than 160 000 from June as a result of the South African government lowering the COVID-19 related lockdown level, which allows for the return to 100% mining capacity. The industry is, however, of the view that it will take time to ramp up operations.

The industry is expecting to see an escalation in the number of positive COVID-19 cases as employees return to work. In this regard, I expect that the implementation of health protocols will likely impact operational efficiency. The expected loss in production cannot be predicted, suffice to assume the risk of production loss is to the downside.

Production delays catalysed from the application of the Code of Practice and union demands

The chief executive of Impala Platinum's Rustenburg operations, Mark Munroe, was arrested for alleged conflicting interpretations of the regulations between police and what the industry agreed with the government during the nationwide lockdown. Mark Munroe was later released as it was a clear there has been a disconnect between governmental departments about regulations.

As indicated, the mines have been proactive and implemented the DMRE’s COVID 19 regulations, including the recently introduced COP as a minimum requirement and continue to engage with employees, unions, government and public health authorities.

Unions opposed the reopening of the mining sector in the face of the Covid-19 pandemic as the industry (and government) aimed for a complete return to work from 1 June 2020. Furthermore, unions want universal testing in the mining industry. They have indicated that they could involve the use of Section 23 of the Mine Health and Safety Act, which says that an “employee has the right to leave any working place whenever – (a) circumstances arise at that working place which, with reasonable justification, appear to that employee to pose a serious danger to the health or safety of that employee; or (b) the health and safety representative responsible for that working place directs that employee to leave that working place”. (Ed Stoddard, Business Maverick)

I do not expect that this controversy will be settled soon and in this regard the risk of a loss in production is to the downside. Furthermore, I expect a number of incidences will likely occur over conflicting interpretations of the regulations.

Production delays caused delays in re-opening borders between South Africa and neighbouring states

Almost all the mines in South Africa employ a significant number of mineworkers from neighbouring states. Since the lockdown for mines was lifted on 1 June thousands of mineworkers are unable to return to work as there have been delays in re-opening South African borders. As a result, many mines cannot ramp up production timeously and production delays are expected.

Production delays caused by the impact of Eskom load shedding

The continuity of South African production is not secure with regard to electricity supply. During the period of full lockdown industry was at a standstill and as a result Eskom could supply South Africa's towns and cities. Subsequently, the South African government has lowered the COVID-19 related lockdown level, which allows for a return to 100% industry capacity, which will significantly ramp up electricity consumption.

Eskom has warned that South Africa can expect regular blackouts from power cuts of 8,000 megawatts by mid-2021. Under these circumstances, power outages (load shedding cycles) are likely to resume.

Load shedding will likely impact PGM mine supply at a load shedding of stage 3 and above. I am of the view that load shedding is likely be in place for at least three to five years and will have an impact on PGM production. The risk is to the downside.

To read on in this research please see Part 2 of 3, which is now available online

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David has been associated with the South African mining industry and mining investment industry for the past 43 years (mainly PGM, gold and uranium). At present, David is working as an independent precious metal consultant. David's PhD involved: "Studies in the catalytic reduction and decomposition of nitric oxide 1976".

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