Australian Gold Fund
2020 September Quarter Summary
As at 22nd December 2020
(Report Released 7th January 2021)

Summary

Since the last report, the world has indeed been through yet another period of surprises and historical turning points. As this report is uploaded, the US Congress has confirmed the electoral college votes for Democrat Candidate Joe Biden and his running mate, Senator Kamala Harris. However, while this appears to be done and dusted, the author of this report does not believe it is. Furthermore, the events that may likely unfold following this will possibly prove to be an even bigger rollercoaster ride than what we have just had.

Going back to the gold and precious metals side of things, the last three months have seen the expected decline in precious metals prices as seen in the previous years due to the end of the Diwali season as well as the return of traders from the Northern Hemisphere summer holidays. The gold mining stocks were no exception to experiencing the decline, with some sharp declines especially post-US election when the index fell by more than 5% in daily trades. On 10th November, the ASX Gold Index fell by an eye-watering 8.3% and another 7% on 24th November. Interestingly, the ASX Gold Index not only hit the bottom once, nor twice, but three times before it made its recovery. The first bottom was on 24th November, the next was 15th December and the final bottom was on 29th December.

The tumultuous events during the last two and a half months have occupied the author of this report. Furthermore, during the Christmas and New Year break, no access to the market data was available that would have been used for the analysis of the miners. Access resumed on 7th January 2021 and the author felt it was time to simply round off the analysis and report for uploading on the website.

To say the least, the world's events have been an even wilder rollercoaster ride emotionally than investing in gold mining companies during this same period.

Key Events and Transactions

Since the last summary report released in mid-October, the following major events occurred:

- New Zealand Prime Minister Jacinda Ardern was re-elected with a majority to govern the nation on 17th October.
- President Trump negotiated the third of four deals between Israel and surrounding Arab Nations with a normalisation agreement between Israel and Sudan on 23rd October. By the time he was running for election on 3rd November, President Trump had managed to sign three agreements, an exceptional foreign relations policy achievement (President Jimmy Carter secured one between Israel and Egypt in 1979 while President Bill Clinton secured one between Israel and Palestine in 1994).
- The US election that was held on 3rd November resulted in Democrat Party Candidate Joe Biden gaining 306 electoral votes from 25 states and 81.3 million votes vs President Trump gaining 232 electoral votes from 25 states and 74.2 million votes. The Republicans interestingly won a net of 12 seats and lost a net of 1 Senate seat. However, these results are subject to dispute and legal challenges owing to the widespread use of mail-in ballots and concerns relating to vote counting irregularities. These disputes have prevailed till early January 2021.
- President Trump negotiated the fourth deal between Israel and Morocco on 11th December.
- The Electoral College proceeded to certify the state votes on 14th December while several attempts by the Trump administration, Republican state legislatures and citizens sought court case hearings on voter and election fraud allegations. However, most courts stated they would not hear or dismissed the cases on procedural matters. While this is interpreted to be the allegations are without grounds, we hold to the view that these are serious cases of judicial deference and may lead to eventual criminal prosecutions of judges and other officials.
- The Wuhan virus is allegedly said to have mutated into different strains causing many countries to resume lockdown restrictions including the UK, several EU countries and Democrat-run states in the US.
- As of writing of this belated summary report, the Congress has certified and counted the electoral votes for Candidate Joe Biden. While this appears to imply that Biden will be leading the US starting 20th January 2021, the author of this report believes that there is something yet to come that will overturn the certification. The issue is one relating to knowingly certifying an election that was fraudulent and engaging foreign entities to assist. At the stage of writing, this sounds like conspiracy theory that is debunked but the author believes the statements made in this report will stand the test of time in hindsight.

In relation to the ASX-listed gold producers featured in this report, the following major transactions and events occurred in the past three months:

- Aeris Resources (ASX: AIS) has completed the integration of the Cracow mine into their company's operations and delivered a full quarter of production.

- Aurelia Metals (ASX: AMI) announced on 13th November the acquisition of the Dargues mine for $205m, funded by debt, cash reserves and also a $130m equity capital issue.
- Alacer Gold completed the merger with Silver Standard Resources (ASX: SSR).
- Gascoyne Resources (ASX: GCY) resumed trading on 21st October after recapitalising.
- Newcrest Mining (ASX: NCM) commenced their secondary listing on the Toronto Stock Exchange and approved the Stage 2 development of the Cadia Expansion Project that will increase the plant capacity to 35Mt p.a.
- Northern Star Resources (ASX: NST) and Saracen Mineral Holdings (ASX: SAR) agreed on 6th October to merge, with the arrangements to be completed by February 2021. This merger will be subject to no premium for either parties and will make the combined entity the second largest ASX-listed producer.
- Oceanagold (ASX: OGC) raised US$122.4m (around A$170m) via an equity offering to allow for the company to continue with their development of their mine properties, including the Waihi underground mine.
- Pantoro (ASX: PNR) released a Definitive Feasibility Study for Phase One of restarting the Norseman mine, with production expected to be 108 000oz p.a. at AISC approximately $1 292/oz for around six years of production with expansion potential arising from Phase Two.
- Perseus Mining (ASX: PRU) announced on 18th December that they have poured their first gold at the newly constructed Yaoure mine, five weeks ahead of schedule.
- Ramelius Resources (ASX: RMS) announced a feasibility study for the Penny and Edna May Underground projects on 9th November, showing potential for a high grade low cost operation to complement its existing portfolio of producing mines.
- Red 5 (ASX: RED) has commenced construction of the camp and central facilities at the King of the Hills deposit and will be implementing "Project 200" that aims to reduce AISC by $200 on gold delivered during the 2021 financial year.
- Resolute Mining (ASX: RSG) announced that the CEO John Welborn would step down on 19th October and the CFO Stuart Gale would assume the role of Interim CEO. On 15th December, Resolute Mining announced that they have sold the Bibiani Gold project to Chifeng Jilong Gold Mining Incorporated for US$150m (around A$210m). This sale will be completed by March 2021.
- Silver Lake Resources (ASX: SLR) announced on 21st December that they have sold the Andy Well and Gnaweeda projects, both acquired from Doray Minerals, to Latitude Consolidated (ASX: LCD) for $10m.
- Troy Resources (ASX: TRY) announced on 26th October they would raise $15m of equity capital with a view to increasing their underground reserves and resources in the Karouni mine.
- Westgold Resources (ASX: WGX) reported on 15th December the tragic death of a worker at the Big Bell mine. Operations resumed on 17th December.

The Big Picture

ASX Code	Category	Market Capitalisation	Net Cash	Net Cash Flow-Capex	Production	% Annual Guidance	Rise/Fall?	AISC	Rise/Fall?
AGD*	D	$107.553	$17.021	$5.033	18,098	31.47%	Rise	$1,474.970	Rise
AIS	D	$185.908	-$28.200	$0.000	20,237	27.91%	Rise	$1,282.000	Rise
ALK	E	$559.665	$37.800	-$8.300	11,499	24.21%	Fall	$1,575.000	Rise
AMI	D	$506.074	$106.429	$36.700	29,995	35.29%	Fall	$1,000.000	Fall
AQG*	B	$5,563.550	$465.758	$22.685	146,052	22.38%	Rise	$1,445.611	Rise
DCN	D	$208.691	-$0.600	$9.534	32,799	28.52%	Rise	$1,315.000	Fall
EVN	B	$8,662.942	-$180.300	$184.200	170,021	24.29%	Fall	$1,198.000	Rise
GCY	D	$107.869	-$19.805	$2.876	20,314	27.09%	Fall	$1,410.000	Fall
GOR*	C	$1,095.806	$103.002	$25.801	27,960	21.51%	Fall	$1,488.000	Rise
KLA*	A	$15,002.379	$1,188.968	$385.437	339,584	24.70%	Rise	$1,238.695	Rise
MML	D	$156.885	$90.269		28,363	30.66%	Rise	$1,508.524	Fall
NCM	A	$21,369.280	-$1,900.562		503,089	24.54%	Fall	$1,370.114	Rise
NST	A	$9,276.846	-$54.700	$121.000	231,594	23.51%	Fall	$1,544.000	Rise
OGC*	C	$1,506.307	-$421.730	-$14.820	63,136	19.73%	Rise	$2,369.739	Rise
PNR	D	$295.764	$50.815	$5.800	8,012	21.37%		$1,612.000	Rise
PRU	C	$1,526.441	-$2.600	$44.000	68,772	19.93%	Rise	$1,347.745	Fall
RED	D	$502.582	$98.479	-$5.005	20,283	21.58%	Fall	$2,126.000	Fall
RMS	C	$1,294.428	$205.700	$48.700	71,344	26.42%	Fall	$1,241.000	Rise
RRL	C	$1,889.620	$224.900	$48.100	81,567	22.20%	Fall	$1,382.430	Rise
RSG*	C	$844.478	-$327.032	$38.167	87,303	21.04%	Fall	$1,795.130	Rise
SAR	B	$5,228.047	$145.900	$218.000	154,388	24.90%	Rise	$1,169.000	Rise
SBM	C	$1,650.538	-$12.000	$9.000	72,990	18.72%	Fall	$1,711.000	Rise
SLR	C	$1,551.573	$303.500	$60.500	62,262	25.41%	Fall	$1,420.000	Rise
TRY	D	$65.865	$6.560		6,334	16.89%	Rise	$2,667.529	Fall
WAF	D	$861.109	-$173.180	$31.576	32,626				
WGX	C	$1,089.308	$129.700		60,797	21.33%	Rise	$1,459.000	Fall
WMX	D	$166.234	-$4.314	-$18.012	13,360	21.55%	Rise	$2,012.000	Fall

* Denotes companies trading in 2020 Q3

The 2020 September quarter. Production has decreased to 90 867oz on average across the 26 companies (excluding AIS) from 94 689oz. Including AIS, average production is 88 251oz. The average AISC for the 26 producers is $1 555/oz, up from $1 537/oz, although when taking into account the production-weighted average, this has increased to $1 394/oz. Surprisingly, only 8 out of 26 companies (31% – excluding West African Resources) produced more than 25% of their annual guidance during this quarter. 11 out of 24 companies (46%) delivered a higher quarterly production than the previous quarter, with 9 out of 25 companies (36%) recorded a lower AISC. 15 out of 27 companies (56%) have a positive cash balance as at the end of the September quarter. Out of 23 companies that reported quarterly cashflows, 19 (83%) delivered positive operating cashflows after accounting for sustaining capital expenditure.

The reason for the fall in the average production this quarter compared to the last is predominantly caused by the larger producers reporting reduced production. Thus, this quarter's result seems to point to companies facing mine delays, lower mined grades or other operational issues rather than due to the lockdowns associated with the virus outbreak as many countries began to loosen their restrictions gradually. Noting some prominent examples, St Barbara reported an almost 33% quarter-on-quarter decline in production as a result of operational issues in the Gwalia mine and the Simberi mine, Resolute Mining reporting an almost 18% reduction in production due to a sharp decline in gold produced in the Syama Oxide operations and Northern Star reporting production falling by over 10% driven by a decline in the Kalgoorlie operations (excluding the Super Pit). On the other hand, Alacer Gold/Silver Standard increased their production as a result of the merger. The Copler operations also increased their production from the previous quarter as the ramp-up of the Copler Sulfide operations continued.

ASX Code	Category	MCap	Net Cash	Rise/Fall?	Cumulative CF-Capex	Cumulative Production	Resources	Reserves	2020 Guidance	Change?	% Progress	On Track?
AGD*	D	$107.553	$17.021	Rise	$19.821	44,924	875,000	241,583	57,500	Downgrade	78.13%	Yes
AIS	D	$185.908	-$28.200		$0.000	20,237	345,000	114,000	72,500		27.91%	Yes
ALK	E	$559.665	$37.800	Fall	-$8.300	11,499	1,616,000	176,000	47,500	Upgrade	24.21%	No
AMI	D	$506.074	$106.429	Rise	$36.700	29,995	677,000	356,950	85,000	Maintain	35.29%	Yes
AQG*	B	$5,563.550	$465.758	Rise	$201.824	279,822	14,722,000	8,628,550	652,500	Upgrade	42.88%	No
DCN	D	$208.691	-$0.600	Fall	$9.534	32,799	2,067,000	754,000	115,000	Downgrade	28.52%	Yes
EVN	B	$8,662.942	-$180.300	Rise	$184.200	170,021	26,549,000	9,496,000	700,000	Downgrade	24.29%	No
GCY	D	$107.869	-$19.805	Rise	$2.876	20,314	801,300	426,300	75,000	Maintain	27.09%	Yes
GOR*	C	$1,095.806	$103.002	Rise	$66.985	93,690	3,610,000	1,860,000	130,000	Downgrade	72.07%	No
KLA*	A	$15,002.379	$1,188.968	Rise	$727.276	1,000,218	39,216,000	23,041,000	1,375,000	Maintain	72.74%	No
MML	D	$156.885	$90.269	Rise	$0.000	28,363	825,200	332,000	92,500	Downgrade	30.66%	Yes
NCM	A	$21,369.280	$0.000	Rise	$0.000	503,089	120,743,000	54,556,000	2,050,000	Downgrade	24.54%	No
NST	A	$9,276.846	-$54.700	Rise	$121.000	231,594	31,807,000	10,805,000	985,000	Upgrade	23.51%	No
OGC*	C	$1,506.307	-$421.730	Fall	$90.187	202,521	9,380,000	5,378,333	320,000	Downgrade	63.29%	No
PNR	D	$295.764	$50.815	Rise	$5.800	8,012	2,542,884	752,000	37,500	Upgrade	21.37%	No
PRU	C	$1,526.441	-$2.600	Fall	$44.000	68,772	7,131,000	3,281,000	345,000	Upgrade	19.93%	No
RED	D	$502.582	$98.479	Rise	-$5.005	20,283	6,371,900	3,076,950	94,000	Downgrade	21.58%	No
RMS	C	$1,294.428	$205.700	Rise	$48.700	71,344	4,716,600	1,139,000	270,000	Upgrade	26.42%	Yes
RRL	C	$1,889.620	$224.900	Rise	$48.100	81,567	7,690,000	3,620,000	367,500	Upgrade	22.20%	No
RSG*	C	$844.478	-$327.032	Rise	-$18.553	305,249	10,718,000	3,950,000	415,000	Downgrade	73.55%	No
SAR	B	$5,228.047	$145.900	Rise	$218.000	154,388	17,400,000	8,500,000	620,000	Upgrade	24.90%	No
SBM	C	$1,650.538	-$12.000	Rise	$9.000	72,990	11,556,000	6,005,000	390,000	Upgrade	18.72%	No
SLR	C	$1,551.573	$303.500	Rise	$60.500	62,262	6,087,000	1,153,000	245,000	Downgrade	25.41%	Yes
TRY	D	$65.865	$6.560	Fall	$0.000	6,334	1,007,000	72,200	37,500	Upgrade	16.89%	No
WAF	D	$861.109	-$173.180	Rise	$7.874	77,964	4,266,000	1,669,417				
WGX	C	$1,089.308	$129.700	Rise	$52.200	60,797	8,799,000	2,555,000	285,000	Downgrade	21.33%	No
WMX	D	$166.234	-$4.314	Fall	-$18.012	13,360	6,381,000	1,380,000	62,000	Downgrade	21.55%	No

* Denotes companies trading at 2020 Q3

This quarter is the first quarter for the 2021 financial year for a large proportion of the companies we cover. Around as many of these companies upgraded their production guidance (9) as did those that downgraded (8) for 2021. Across the entire sample, 10 upgraded their production, 3 maintained their guidance and 12 downgraded. Overall, the average production guidance has fallen around 5% from the previous quarter. Among companies that have upgraded production, Alacer Gold and Perseus Mining have expanded their operations as a result of a merger with Silver Standard Resources and the completion of the Yaoure mine, respectively. The guidance for Perseus Mining has not been officially updated, but we have given the estimate production of 345 000oz based on our best judgment.

While companies release production guidance at the start of the financial year and adjust them during the year, we have seen in our previous reports that several companies downgrade them or may simply underperform relative to these for one reason or another. This was especially the case as a result of the virus outbreak. Given the anomaly of 2020, we treat production guidance as a loose estimate on the company's operational performance, even more so than previously. We will reserve our judgment after reviewing to what extent companies do deliver their guidance targets for the 2021 operating year.

Interesting to note is that Silver Lake Resources downgraded their 2021 guidance after delivering a rather robust outperformance in 2020 where they had upgraded their guidance twice. Despite their downgrade, we look at this company with confidence of an upgrade or two into the year. We note that Alacer Gold/Silver Standard appears to be behind their guidance as a result of the merger occurring and their guidance being substantially upgraded. Hence, despite their production being 43% of the annual guidance, we should note that the company's Copler operations have been performing strongly.

Several companies may see upgrades during the coming quarters as their acquisitions of mines or companies result in increased scope of operations. For example, Northern Star and Saracen will merge in February 2021, Aurelia Metals purchasing the Dargues mine in December 2020, Evolution Mining expecting to ramp up the Red Lake Complex mine, Perseus Mining commencing production at the Yaoure mine, Regis Resources commencing construction of an underground mine at Rosemont, West African Resources reporting their production guidance at the Sanbrado mine and Wiluna Mining commencing their Stage 1 expansion of their operations to extract and process sulfide ore.

The bubble charts show the relative standing for these gold producers in relation to their quarterly production, AISC and their market capitalisation:

The charts suggest that there is a weakly negative correlation between production and AISC, as expected. We can see the relationship more so for the major and large gold producers as well as also for the junior producers. With the mid-tier producers, the trend is not as evident. Of note, Oceanagold, Red 5, Resolute Mining and St Barbara Mines somewhat stand out from the trend due to their significantly high AISC resulting from lower production and operational issues. Companies with by-product credits like Aurelia Metals and Aeris have delivered lower cost ounces. It is interesting also to see that Dacian Gold delivered below average AISC for the quarter compared to its peers, after having been plagued with substantial problems resulting in them closing down their underground mining operations. This is, however, early days in calling the worst being behind them.

Cumulative Progress

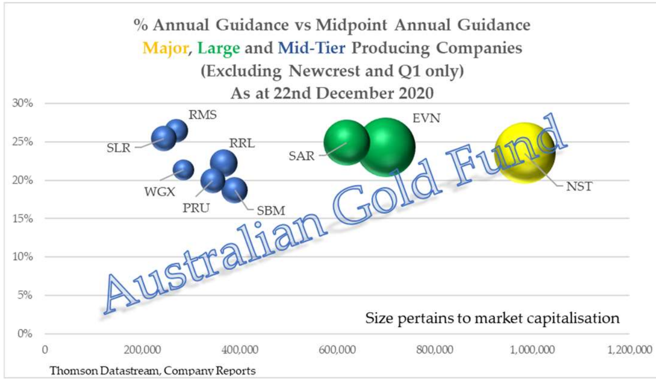
ASX Code	Quarter	Category	Market Capitalisation	Cumulative Production	Midpoint Annual Guidance	Guidance Change	% Annual Guidance	Cumulative AISC
AGD*	3	D	$107.55	44,924	57,500	Downgrade	78.13%	$1,391.47
AIS	1	D	$185.91	20,237	72,500		27.91%	$1,282.00
ALK	1	E	$559.67	11,499	47,500	Upgrade	24.21%	$1,575.00
AMI	1	D	$506.07	29,995	85,000	Maintain	35.29%	$1,000.00
AQG*	3	B	$5,563.55	279,822	652,500	Upgrade	42.88%	$1,313.58
DCN	1	D	$208.69	32,799	115,000	Downgrade	28.52%	$1,315.00
EVN	1	B	$8,662.94	170,021	700,000	Downgrade	24.29%	$1,198.00
GCY	1	D	$107.87	20,314	75,000	Maintain	27.09%	$1,410.00
GOR*	3	C	$1,095.81	93,690	130,000	Downgrade	72.07%	$1,277.93
KLA*	3	A	$15,002.38	1,000,218	1,375,000	Maintain	72.74%	$1,186.89
MML	1	D	$156.89	28,363	92,500	Downgrade	30.66%	$1,508.52
NCM	1	A	$21,369.28	503,089	2,050,000	Downgrade	24.54%	$1,370.11
NST	1	A	$9,276.85	231,594	985,000	Upgrade	23.51%	$1,544.00
OGC*	3	C	$1,506.31	202,521	320,000	Downgrade	63.29%	$2,033.25
PNR	1	D	$295.76	8,012	37,500	Upgrade	21.37%	$1,612.00
PRU	1	C	$1,526.44	68,772	345,000	Upgrade	19.93%	$1,347.75
RED	1	D	$502.58	20,283	94,000	Downgrade	21.58%	$2,126.00
RMS	1	C	$1,294.43	71,344	270,000	Upgrade	26.42%	$1,241.00
RRL	1	C	$1,889.62	81,567	367,500	Upgrade	22.20%	$1,382.43
RSG*	3	C	$844.48	305,249	415,000	Downgrade	73.55%	$1,619.89
SAR	1	B	$5,228.05	154,388	620,000	Upgrade	24.90%	$1,169.00
SBM	1	C	$1,650.54	72,990	390,000	Upgrade	18.72%	$1,711.00
SLR	1	C	$1,551.57	62,262	245,000	Downgrade	25.41%	$1,420.00
TRY	1	D	$65.87	6,334	37,500	Upgrade	16.89%	$2,667.53
WAF	3	D	$861.11	77,964				
WGX	1	C	$1,089.31	60,797	285,000	Downgrade	21.33%	$1,459.00
WMX	1	D	$166.23	13,360	62,000	Downgrade	21.55%	$2,012.00

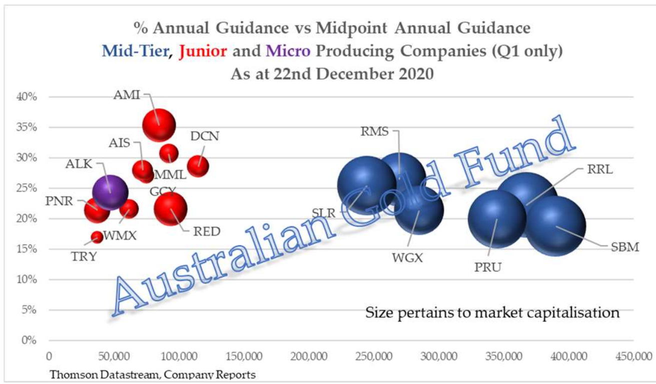
* Denotes companies trading in 2020 Q3

Among the companies that are in their first quarter of production for 2021, the average production is 83 401oz. For the companies that completed their third quarter, the average production is 286 341oz. The average cumulative AISC is $1 507/oz while the production-weighted average is $1 393/oz, compared to last quarter's $1 400/oz and $1 322/oz, respectively. This jump in the cumulative AISC is partly due to the fact that several companies reporting for the first quarter of 2021 have experienced a weaker quarter. Interestingly though, for companies that completed their first quarter of 2021, their average production relative to guidance is 24.3% while those that completed their third quarter of 2020 are on average somewhat behind at 67.1%.

The cumulative AISC for this quarter is significantly higher than the same period last year, yet beyond the proportion when compared to last year's production for the quarter. Cost levels have increased due to a multitude of factors as mentioned previously. We will have to monitor the progress in the coming quarters to ascertain whether the industry is facing further inflation on operational costs and not due to the virus outbreak leading to mine closures and restriction on activity.

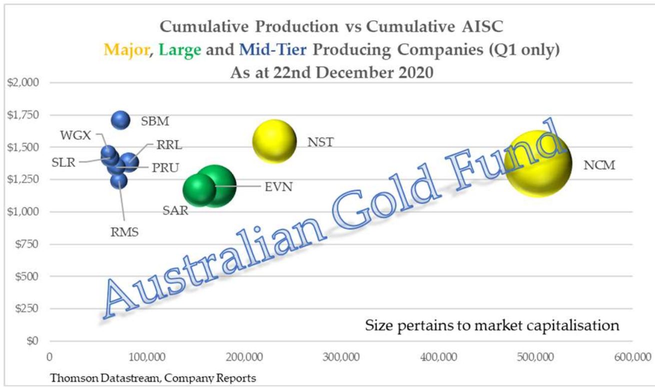
The bubble charts in the next page shows the companies' cumulative performance relative to their annual guidance and also the midpoint of their guidance:

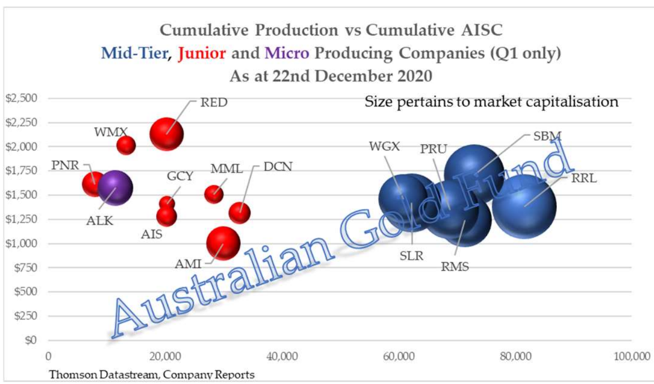




For major, large and mid-tier companies, the annual production guidance and the % of the annual guidance achieved to date for the quarter is very weakly positively correlated at 0.25. However, if we consider the producers by their individual class, this is oddly slightly negatively correlated. On the other hand, for junior and micro companies, they are strongly positively correlated at 0.85. Part of the reason for the weaker correlation for larger companies is due to recent acquisitions by some of these companies leading to the increase in production not yet passing through. As for junior and micro companies, this is not the case. However, with Aurelia Metals, their guidance will increase given the Dargues mine acquisition and production will begin to ramp up to incorporate this mine.

For companies that have completed their third quarter, we can see that Alacer Gold/Silver Standard and Oceanagold have produced less than 65% of the annual guidance. For Oceanagold, this shortfall is due to the temporary suspension of production at Didipio and the Waihi mine due to operations transitioning to underground. Austral Gold is producing ahead of guidance at over 77%, although their annual guidance is only 57 500oz.





The relationship between cumulative production and AISC does not seem to be evident for this quarter. For larger companies, there appears to be a slight positive trend (oddly) for those trading in the first quarter of 2021 though there is a weak negative trend for other companies. When taking the major, large and mid-tier companies that have completed their first quarter of 2021, the correlation coefficient is -0.65 although it should be noted that the relationship is very weak. For the same companies that have completed their third quarter of 2021, the correlation coefficient is 0.01. For junior and micro companies that have completed their first quarter, the correlation coefficient is -0.89. What is interesting to note is that the last three quarters have seen even larger companies facing higher AISC despite their production having increased. This we have so far attributed to a combination of the lockdown restrictions as well as individual companies facing operational delays. We will await two to three more quarters of data to establish whether there is inflation acting on this industry that may explain why costs have increased despite rising production volume. Especially worth mentioning is that the mid-tier companies have definitely seen their AISC increase significantly to an average of A$1 500/oz compared to five years ago when they were operating at around A$1 300/oz, even as the oil price was trading at around US$60-70/bbl. We have noticed that junior producers such as Aeris, Aurelia Metals, Dacian Gold and Gascoyne deliver lower cost ounces this quarter at similar levels as a number of mid-tier and even large producers. However, Dacian and Gascoyne have had a history of high-cost production so whether they can sustain it at this cost level remains to be seen.

Stock Price Performance

ASX Code	Category	Market Capitalisation	Price - 22nd Dec	Price - 1st Jan	Returns Since 16 Mar	YTD Returns
AGD	D	$107.55	$0.190	$0.090	90.0%	111.1%
AIS	D	$185.91	$0.098	$0.037	226.7%	164.9%
ALK	E	$559.67	$0.94	$0.585	88.0%	60.7%
AMI	D	$506.07	$0.410	$0.435	82.2%	-5.7%
AQG	B	$5,563.55	$25.000	$23.575	61.0%	6.0%
DCN	D	$208.69	$0.375	$1.590	-73.2%	-76.4%
EVN	B	$8,662.94	$5.070	$3.800	50.9%	33.4%
GCY	D	$107.87	$0.430	$0.780	-44.9%	-44.9%
GOR*	C	$1,095.81	$1.245	$1.340	54.7%	-7.1%
KLA	A	$15,002.38	$54.790	$63.000	40.5%	-13.0%
MML	D	$156.89	$0.755	$0.790	73.6%	-4.4%
NCM	A	$21,369.28	$26.170	$30.250	20.5%	-13.5%
NST	A	$9,276.85	$12.520	$11.310	36.2%	10.7%
OGC	C	$1,506.31	$2.420	$2.780	28.0%	-12.9%
PNR	D	$295.76	$0.210	$0.155	187.7%	35.5%
PRU	C	$1,526.44	$1.245	$1.160	72.9%	7.3%
RED	D	$502.58	$0.255	$0.330	24.4%	-22.7%
RMS	C	$1,294.43	$1.600	$1.235	90.5%	29.6%
RRL	C	$1,889.62	$3.690	$4.340	26.8%	-15.0%
RSG*	C	$844.48	$0.765	$1.260	23.4%	-39.3%
SAR	B	$5,228.05	$4.720	$3.310	62.2%	42.6%
SBM	C	$1,650.54	$2.340	$2.720	40.5%	-14.0%
SLR	C	$1,551.57	$1.760	$1.340	68.4%	31.3%
TRY	D	$65.87	$0.087	$0.090	38.1%	-3.3%
WAF	D	$861.11	$0.980	$0.430	133.3%	127.9%
WGX	C	$1,089.31	$2.570	$2.290	71.9%	12.2%
WMX	D	$166.23	$1.655	$1.200	136.4%	37.9%

* Denotes companies trading at 2020 Q3

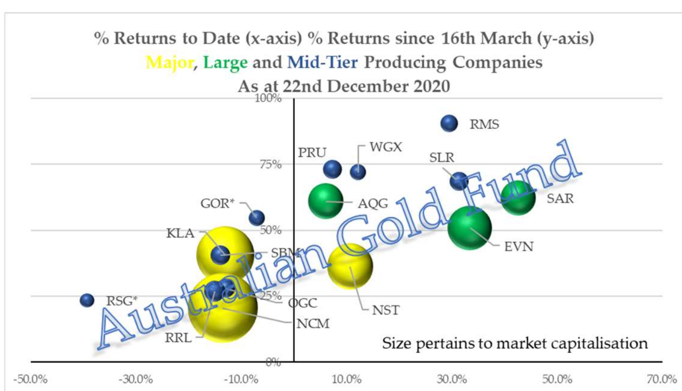
Most of the companies in the sample fell since the last report, given that this report coincides with the seasonal low period for precious metals prices. The proportion of companies delivering a positive return since the start of the year is 14 out of 27 (52%). The average return to date is 16.3%, down from 28.7% in the previous report. Over the same period, the ASX 200 Gold Index rose 7.9% and the ASX 200 Index fell 1.3% thus showing that ASX-listed gold producing companies delivered substantial outperformance against the broader market over this period. Further, the higher average return in this sample relative to the ASX 200 Gold

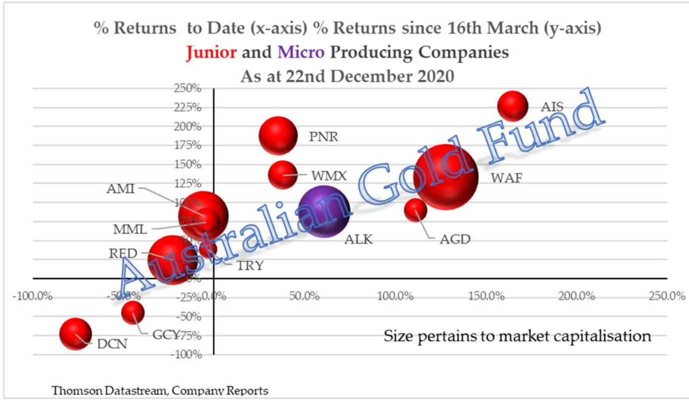
Index, which is market capitalisation weighted, implies that investing in smaller producers delivered higher return. This is expected, although we can also see that these small producers can potentially deliver significantly negative returns.

The gold mining companies and the gold price was at its bottom on 16th March, a week before the broader market reached its lowest point. An overwhelming majority of the companies (92%) finished the year higher than at that period, not surprisingly. The average return since 16th March is 63.4%. The findings show with regards to a broad-range market crash, an astute investor who is not spooked by a short-term drop and is willing to research the company's performance will end up being able to ride the recovery and be rewarded with solid returns. 9 companies, or a third of the sample studied, delivered over 30% returns since the beginning of the year, despite having crashed along with the broad market.

In the previous two reports, we had identified the strongest performers by stock returns to be Alkane Resources, Alacer Gold, Ramelius Resources, Silver Lake Resources and West African Resources. By the end of the year at least based on the stock returns, most of these companies have remained as the strongest performer except that Ramelius Resources and Silver Lake Resources pulled back significantly during the seven-week long pullback of the stock prices. Aeris Resources has been included in our study for the first time after acquiring the Cracow Mine and the stock price for this company has surged largely driven by this acquisition. The weakest performers by the end of the year were unsurprisingly Dacian Gold, Gascoyne Resources, Red 5 and Resolute Mining. These companies experienced significant problems with their mining operations and also raised capital in order to build their balance sheets. Red 5 is an exception to this as they raised over $120m of equity capital in anticipation of having sufficient cash for building the infrastructure in their King of the Hills deposit. However, the Darlot mine has been under-delivering on gold ounces and its AISC has blown out substantially to exceed $2 000/oz.

The bubble charts below show the comparison of these producers' YTD performance against the performance since mid-March:





The tables above show for the major, large and mid-tier gold producers that their returns have been more stable over the year compared to the junior and micro producers. Companies in the fourth quadrant delivered negative returns over the year up till 22nd December 2020 but positive returns since 16th March 2020. Companies in the third quadrant delivered negative returns both over the year and since 16th March 2020. Some leading names in the industry including Newcrest, Kirkland Lake, Regis Resources and St Barbara finished the year delivering negative returns. The strongest performers among the larger producers are Saracen Mineral Holdings, Ramelius Resources, Evolution Mining and Silver Lake Resources. These companies generally delivered satisfactory operating results over the year, while Ramelius Resources and Silver Lake Resources actually exceeded their guidance ranges. Resolute Mining and, surprisingly, Regis Resources performed the worst among the larger producers for the year. We are surprised especially by Regis Resources given they are on the path to developing their first underground mine that is expected to commence production before the end of the 2021 financial year. They also have sufficient cash to build this mine without resorting to capital raising.

For the junior and micro producers, Aeris, West African Resources, Alkane Resources and Austral Gold performed the strongest, delivering over 100% returns since 1st January 2020. Pantoro and Wiluna Mines also ended the year stronger, which we found surprising in the sense that they have both been perennially laggards in terms of their operations and investment potential. As mentioned before, both Dacian Gold and Gascoyne Resources ended the year delivering substantially negative returns, though both had been recapitalised after facing significant problems with their mines. Red 5 ended the year with negative returns, but analysts expect this to set the scene for a strong year in 2021 as they develop the King of the Hills mine and hopefully resolve the operational issues in the Darlot mine.

Valuation

ASX Code	Category	Market Capitalisation	Annualised Production	Resources	Reserves	EV/AISC Production	Valuation	Profit Margin	EV to Profit Multiple	EV/Resources	EV/Reserves
AGD*	D	$107.55	59,899	875,000	241,583	$2,103.094	Undervalued	$1,206.540	1.74	$103.465	$374.743
AIS	D	$185.91	80,948	345,000	114,000	$3,390.899	Fair Value			$620.603	$1,878.140
ALK	E	$559.67	45,996	1,616,000	176,000	$17,869.758	Overvalued	$686.000	26.05	$322.936	$2,965.142
AMI	D	$506.07	119,980	677,000	356,950	$3,330.930	Undervalued	$1,659.000	2.01	$590.318	$1,119.611
AQG*	B	$5,563.55	373,096	14,722,000	8,628,550	$17,948.122	Fair Value	$1,230.307	14.59	$346.270	$590.805
DCN	D	$208.69	131,196	2,067,000	754,000	$2,097.760	Undervalued	$827.000	2.54	$101.254	$277.574
EVN	B	$8,662.94	680,084	26,549,000	9,496,000	$15,577.787	Fair Value	$1,336.000	11.66	$333.091	$931.260
GCY	D	$107.87	81,256	801,300	426,300	$2,215.471	Undervalued	$1,257.000	1.76	$159.334	$299.493
GOR*	C	$1,095.81	124,919	3,610,000	1,860,000	$10,156.431	Overvalued	$932.000	10.90	$275.015	$533.766
KLA*	A	$15,002.38	1,333,624	39,216,000	23,041,000	$12,293.571	Undervalued	$1,427.436	8.61	$352.239	$599.514
MML	D	$156.89	113,452	825,200	332,000	$885.771	Undervalued	$1,185.568	0.75	$80.728	$200.652
NCM	A	$21,369.28	2,012,356	120,743,000	54,556,000	$14,549.294	Fair Value	$1,198.151	12.14	$176.982	$391.694
NST	A	$9,276.85	926,376	31,807,000	10,805,000	$15,552.980	Overvalued	$949.000	16.39	$293.380	$863.632
OGC*	C	$1,506.31	270,028	9,380,000	5,378,333	$14,517.689	Overvalued	-$131.419	-110.47	$205.548	$358.482
PNR	D	$295.76	32,048	2,542,884	752,000	$12,320.825	Overvalued			$96.327	$325.730
PRU	C	$1,526.44	275,088	7,131,000	3,281,000	$7,491.267	Undervalued	$882.186	8.49	$214.422	$466.029
RED	D	$502.58	81,132	6,371,900	3,076,950	$10,589.200	Overvalued	$136.944	77.33	$63.420	$131.332
RMS	C	$1,294.43	285,376	4,716,600	1,139,000	$4,734.496	Undervalued	$1,082.000	4.38	$230.829	$955.863
RRL	C	$1,889.62	326,268	7,690,000	3,620,000	$7,053.584	Undervalued	$873.570	8.07	$216.479	$459.867
RSG*	C	$844.48	406,999	10,718,000	3,950,000	$4,662.723	Undervalued	$573.211	8.13	$109.303	$296.585
SAR	B	$5,228.05	617,552	17,400,000	8,500,000	$9,620.291	Undervalued	$1,183.000	8.13	$292.077	$597.900
SBM	C	$1,650.54	291,960	11,556,000	6,005,000	$9,743.124	Overvalued	$460.000	21.18	$143.868	$276.859
SLR	C	$1,551.57	249,048	6,087,000	1,153,000	$7,116.153	Undervalued	$1,034.000	6.88	$205.039	$1,082.457
TRY	D	$65.87	25,336	1,007,000	72,200	$6,243.993	Overvalued	-$8.388	-744.36	$58.893	$821.399
WAF	D	$861.11	103,952	4,266,000	1,669,417	$14,035.614	Overvalued	$1,200.947	11.69	$242.449	$619.551
WGX	C	$1,089.31	243,188	8,799,000	2,555,000	$5,757.143	Undervalued	$963.000	5.98	$109.059	$375.580
WMX	D	$166.23	53,440	6,381,000	1,380,000	$6,421.081	Overvalued	$572.000	11.23	$26.727	$123.586

* Denotes companies trading in 2020 Q3

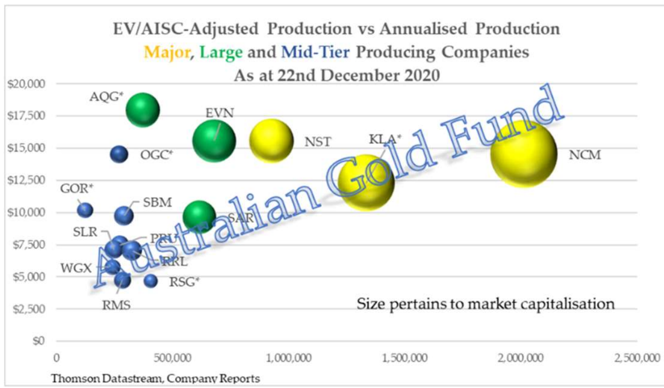
The end of year decline of the prices of gold mining companies has led to the valuation metrics generally falling. The average EV/AISC-Adjusted Production for this quarter has fallen around 3.2% from $9 332/oz to $9 034/oz for the 26 companies. After including AIS, the average EV/AISC-Adjusted Production falling to $8 825/oz. The average EV/Reserves and EV/Resources fell sharply from $957/oz to $664/oz and EV/Resources fell slightly from $238/oz to $221/oz. The sharp decline in the EV/Reserves likely is driven by the decline for Alkane Resources as the reserves almost doubled. This distortion can be adjusted when we consider the production-weighted averages. The average production-weighted EV/AISC-Adjusted Production has fallen from $12 558/oz to $11 506/oz, the average EV/Reserves and EV/Resources have fallen from $603/oz to $517/oz and $270/oz to $228/oz.

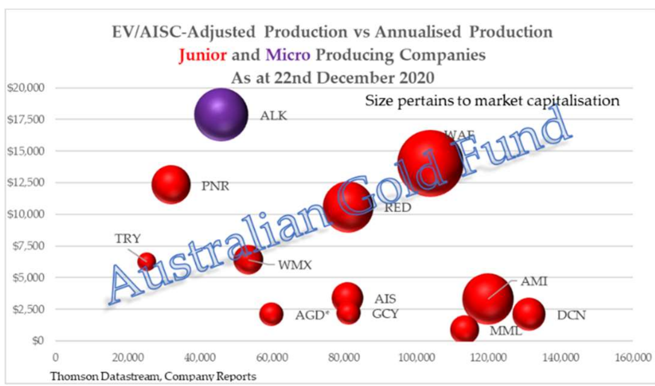
Out of the 27 companies in our sample, we consider 13 to be undervalued (up from 9), 4 to be fairly valued (down from 10) and 10 to be overvalued (up from 8). The results are more polarised as a result of a combination of the stock price declines during these last 7 weeks leading to compelling value appearing for some companies and several companies reporting deteriorating operating conditions leading to their relative valuation being less compelling.

The average levels of the producers' valuation relative to AISC-Adjusted Production, Ore Reserves and Mineral Resources are given below:

	EV/AISC Production	EV/Resources	EV/Reserves
A	$14,131.95	$274.20	$618.28
B	$14,382.07	$323.81	$706.65
C	$7,914.73	$189.95	$533.94
D	$5,784.97	$194.87	$561.07
E	$17,869.76	$322.94	$2,965.14

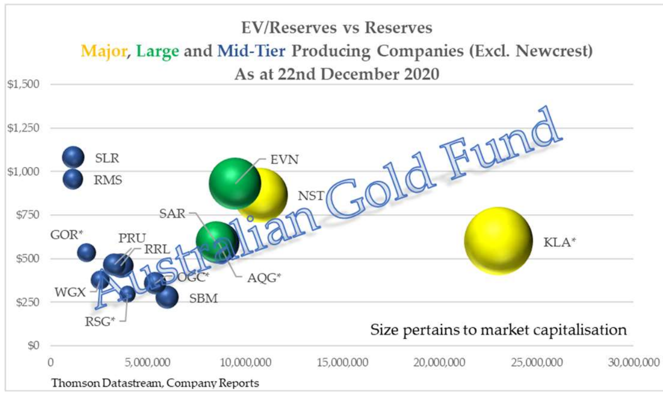
For the major and large gold producers, the valuation multiples have declined around 15% across all measures, except for large gold producers where their valuation relative to AISC-adjusted production actually increased as a result of Alacer Gold/Silver Standard being reclassified. The mid-tier producers similarly saw their valuation multiples decline by over 20% for resources and reserves while for production it fell by just under 8%. The reason for this is due to the amounts of reserves and resources upgrades at the end of the financial year. The average valuation multiples by production do not decline by as much as there have been operational delays and/or mines being sold to other companies leading to reduction in production and/or increase in AISC. In contrast, for the junior and micro producers, the valuation multiples have on average increased for production and resources but declined for reserves. This is rather interesting as these companies saw reserves being upgraded while their AISC-adjusted production and resources have not improved relative to the stock price declining.

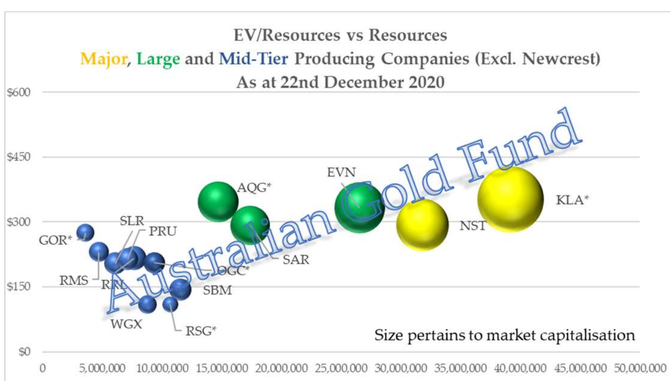




Interestingly, this quarter saw some unusual patterns and trends associated with valuation relative to AISC-adjusted production. For major, large and mid-tier companies, the correlation coefficient is 0.453 and we see a stronger positive trend for the mid-tier companies. For the large and major producers, their valuation remains quite strong at over $12 500/oz, except for Saracen, despite the decline in the stock price. However, substantial value appears to be emerging for mid-tier producers. We notice that Ramelius Resources, Resolute Mining and Westgold Resources are relatively cheap based on this measure, although we do note that Resolute Mining is plagued by a poor track record while Westgold Resources appears to be turning around given the Big Bell mine ramping up.

For the junior and micro producers, we notice the interesting negative correlation between production and the valuation multiple. The correlation coefficient is -0.427, suggesting a weak but negative association. The three largest producers in these two categories are among the cheapest of the class, valued at less than $5 000/oz. For Aurelia Metals and Dacian Gold, there appears to be potential for improved production profile going forward. Medusa Mining, on the other hand, may be undervalued due to their operating in the Philippines, which is plagued with sovereign risk as we have seen the government requesting suspension of mining operations for properties owned by Oceanagold and Red 5. Alkane Resources and West African Resources may appear overvalued based on their AISC-adjusted production metric but that is taking into account their low-cost production as well as substantial reserves and resources to be developed as well as their excellent track record. We note that Austral Gold and Aeris Resources are also on the undervalued end, despite their relatively low-cost production.





The valuation multiples relating to resources and reserves show that for larger companies a positive trend between the amounts of ore and minerals beneath the ground and the resultant valuation but not for smaller companies, strangely. The charts above exclude Newcrest Mining and we can see that there is a distinct positive trend in the company's valuation multiples relative to resources and reserves. Including Newcrest Mining though, the correlation coefficients for EV/Resources and EV/Reserves to resources and reserves are, respectively, 0.03 and -0.17 for larger companies and -0.44 and -0.43 for smaller companies. We are somewhat surprised about the negative trend of the valuation multiples with the resources and reserves for the junior and micro producer companies as it is counterintuitive.

For the larger companies, the track record of strong performance by Evolution Mining, Kirkland Lake and to a certain extent, Northern Star, has meant that their valuation multiples are higher. Adding to that, they produce over 500 000oz p.a. and commands a valuation premium. Saracen, while is poised to merge Northern Star in February 2021, is valued at a slight discount comparatively, and hence appears to be more attractively valued. For the mid-tier companies, Ramelius Resources and Silver Lake Resources have comparatively lower reserves than their peers though their strong performance for the 2020 financial year allowed them to be priced more generously, and appropriately so. Gold Road Resources is similarly generously priced relative to its resources and reserves but this also considers the fact that it owns half of the Gruyere mine. While St Barbara, Resolute Mining and Oceanagold are undervalued in relation to their resources and reserves owing to their substantial volume, though the market has been disappointed by their operations.

We recognise that Pantoro, Red 5 and Wiluna Resources have relatively large resource base and their recent operational performance has been unsatisfactory. In contrast, Alkane Resources has delivered solidly over the past two years and they are in the process of adding more resources and reserves into their inventory so the market has moved ahead of this, leading to a higher valuation multiple. This can also be partially argued for Aeris Resources and Aurelia Metals, except for the latter their performance has only begun to stabilise after their decline in 2019.

Valuation Thesis

Our key valuation metric is the **EV/AISC-Adjusted Annual Production** as we have found in our empirical study that the market valuation is most aligned to this metric, as opposed to earnings, resources and reserves. We also prefer a multiples method over the typical Discounted Cashflow Method for valuation because we understand that beyond even one year of projection, everything is highly speculative – whether it is the management outlook on production and costs as well as the gold price and broader economic drivers. To allow for comparison across all classes of producers, our metric can standardise by the company's scope of production as we observe that the market values the companies with higher production with a greater multiple. However, we scale production by AISC because we believe that not all ounces are equal. Companies that can produce gold at lower cost are naturally more profitable and deserve a higher multiple of their production and other operational or financial performance measures. We use the following classes for the different tiers of gold producing companies – **A** (major producer – 1Moz p.a. or more), **B** (large producer – 0.5-1Moz p.a.), **C** (mid-tier producer – 150 000-500 000oz p.a.), **D** (junior producer – 50 000-150 000oz p.a.) and **E** (micro producer – less than 50 000oz p.a.).

The **Enterprise Value** is the sum of the market value of equity (stock price multiplied by number of issued stocks) and net debt (total borrowings less cash and gold bullion, but excluding gold in circuit and ore stockpiles). This metric quantifies the market value of the company's assets deployed in the company's operations. The **AISC-Adjusted Annual Production** calculated as the annual production of gold per oz divided by the AISC adjusted by a factor of 1 000. The factor of 1 000 is arbitrarily chosen as a way to standardise the final metric. As an illustration, if a company produces 250 000oz p.a. at AISC of $1 250, the AISC-adjusted production is 200 000.

When determining the production ranges in our valuation metric, we take the management guidance as this is based on their access to information relating to their operations and progress. We believe that the market will use the guidance figures to base their valuation and investment decisions. This may not always be optimal given that some management may have their bias in reporting their outlook, as well as having a track record of announcing surprises. In such cases, we seek to qualify this in our SWOT analysis and adjust it in our EV/AISC-Adjusted Production multiple.

The **Price Range** determines a reasonable range for which the company stock price should be trading at. This range is relatively wide as it considers the **margin of safety**. A company whose stock price is currently outside the fair value range is significantly over or undervalued and investors should look more deeply into the company's operations, financial performance and recent market announcements. This range should not be taken as the sole driver for investment decisions, but as a starting point for further research to identify the potential causes for the current stock price.

We recognise that many analysts consider discretionary forecasts and adjustments on the company's production level, ore grade, cost levels, resources and reserves and economic factors into their valuation. We have studied many of these reports and recognise their merits. However, our view is that such subjective adjustments are dubious in terms of additional accuracy of their estimations. This is because with mining companies, both internal and external drivers that affect the company's future performance are unpredictable. Furthermore, we understand that while a company with substantial resources and reserves have potential to convert into substantial value in future, this is contingent on the successes in building the infrastructure, extracting the ore from the ground and processing it in a cost-effective manner. We recognise the criticism by many regarding our approach, but we have tried and tested our valuation against the actual price performance as well as through our own investment performance. We let these results speak for themselves.

Given the rise in gold price in the recent three months, we see reason to re-rate the gold mining companies' valuation metrics upwards to reflect their improving profitability as well as increased enthusiasm from investors. As a rough guide, the fair value ranges for different mining company classes are as follows:

***Major and Large Companies** - $8 000-$12 000/oz*

***Mid-Tier Companies** - $4 000-$7 000/oz*

***Micro and Junior Companies** - $1 500-$4 000/oz*

We also add that after reviewing our reports, we have found another metric that may inform the fair value ranges, namely the Operating Margin. The Operating Margin is the difference between the Gold Sale Price per oz and the AISC. A higher Operating Margin implies higher cashflow generation. We have also found that the market appears to take this into account when determining the price they will pay to purchase the stocks. We found that there is a link between the Operating Margin and our EV/AISC-Adjusted Production in that 8-12 times the Operating Margin gives a reasonable EV/AISC-Adjusted Production.

Glossary

The **All-in Sustaining Cost (AISC)** is a measure adopted by the World Gold Council as a standardised measure of production costs. This cost includes typically the **Cash Cost** associated with the direct production (extraction, transportation, processing and refining costs, staff salary and wages and relevant corporate costs) as well as **Sustaining Expenditure** that may include maintenance of mine equipment and infrastructure, insurance and administration costs over its production life. Companies may still have discretion in apportioning their expenses.

The **Net Cash/Debt** is the net amount of cash and bullion the company holds after their borrowings and interest-bearing debt are paid. This represents the liquidity position of the company, although this measure does not consider whether the debt is current (due within the next twelve months) or not. A company in a significant net debt position is owing more than they currently have in cash and bullion, which may potentially put them in financial distress if the debt is due soon.

The **Net Cashflow from Operations Excluding Maintenance Capital Expenditure** measures to what extent the company can generate cashflows from its operations after paying for its operating costs as well as Cash Paid for Purchases of Property, Plant and Equipment and the Cash Paid for Development Expenditure in the Investing Cashflows section of the Statement of Cash Flows. It does not include Cash Paid for Exploration and Evaluation, which is assumed to be growth capital expenditure. This is by no means a stable and comparable measure as different companies may have discretionary interpretation of what constitutes as Operating Activities and Investing Activities or Development, Exploration and Evaluation expenditures.

Disclaimer

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