Australian Gold Fund Valuation and SWOT Analysis

Medusa Mining Limited (ASX: MML)

Date	23/05/2019
Classification	Junior Gold Miner
Current Price	$0.395
No. Issued Stocks (m)	207.8
Net Cash + Bullion + 0.5 x GIC ($ m)	$17.26
Last Dividend Payment ($ p.a.)	$0.00
Market Capitalisation ($ m)	$82.08
Enterprise Value ($ m)	$64.81
Resources (oz)	1,368,900
Reserves (oz)	350,000

Ranking	Very Undervalued
Price Range	$0.387-$0.805
Annual Production Guidance (oz p.a.)	98 000-105 000
All-In Sustaining Cost Guidance ($/oz)	$1 400-$1 550
EV/AISC-Adjusted Production Guidance ($/oz)	$941.88
EV/AISC-Adjusted Production Range ($/oz)	$1 000-$2 000
EV/Resources ($/oz)	$47.34
EV/Reserves ($/oz)	$185.17

Summary

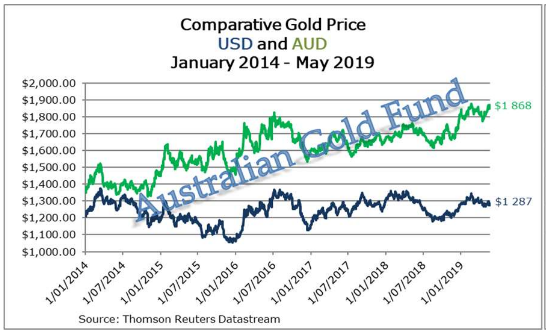
Medusa Mining is starting to embark on the next stage of growth, with the annual guidance being upgraded from 90 000-100 000oz to 98 000 to 105 000oz. The March quarter production has increased from 23 120oz last quarter to 29 858oz, with the AISC falling from A$1 705/oz to $1 333/oz. The company has overcome some of its operational disruptions and is on track to increase its scope in the coming quarters. The financial position of the company looks to be healthy, with cash and bullion being worth A$27.7m with $9.9m debt, but more importantly, the company has been increasing their cash and bullion balance arising from operating cashflows.

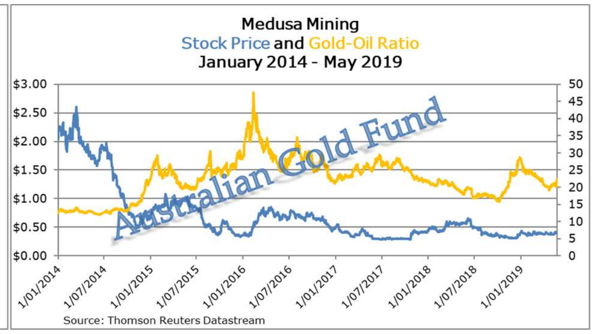
Over the past four years, Medusa Mining has been producing between 80-105koz p.a. of gold, although their highest production was back in 2016. Production cost spiked in 2017 but has since decreased mildly, although quarterly AISC has been generally above $1 500/oz. Management has now appeared to address the problems regarding their mining infrastructure to improve processing efficiency. Looking at the ore milled, Medusa Mining has almost reached the annual capacity of its previous years by the March 2019 quarter. The milling grade has also improved to around 6-6.5g/t and the recovery rate is in the upper end of the 90-95% range, all boding positive for the company.

In terms of the resources and reserves, management has announced that the ore reserves have increased from 327 000 to 350 000oz, gross of depletion. Furthermore, they indicate the 2019 Resources and Reserves Statement will signal increases also in resources. The latest exploration results show some high-grade results, albeit small intercepts. Management will need to deliver increasing resources and reserves given the Co-O mine has around 3.5 years of reserve life, which is precariously low. Furthermore, the resources and reserves have been in a predominantly downward trend, though this may turn around come this August/September.

Medusa Mining has been undervalued for a long period of time, with the stock price trading below $0.50 since early 2017 when the gold price declined in the wake of the victory of President Trump in the 2016 election that led to a massive relief rally. At the same time, Medusa Mining had been battling problems with operational bottlenecks and processing plant delays, leading to the stock price plumbing the $0.30 range for much of the year. Even after the operational improvement over 2018 and the stock price recovered temporarily over $0.50, investors have not yet been convinced. However, given the March quarter results that point to stronger production and the processing capacity has increased, investors can take heart that the worst may be over.

At the current price of $0.395, the company's EV/AISC-Adjusted Production is around $942, which is below the $1 000-$2 000 guidance range. Even using the $800-$1 800 range for typical junior mining companies, the company is still very undervalued. Investors may be waiting for confirmation of higher resources and reserves to take heart and commit further funds into the company.



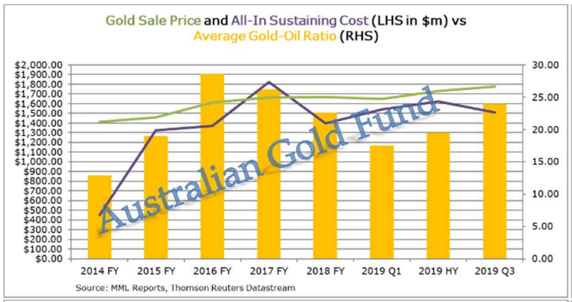


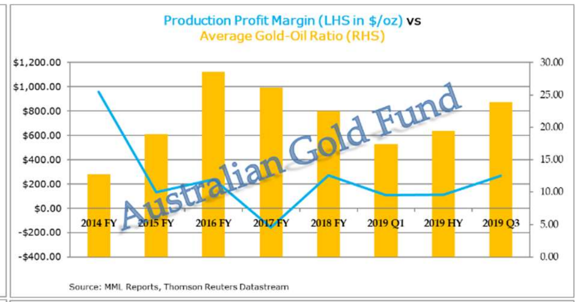
Prevailing Environment

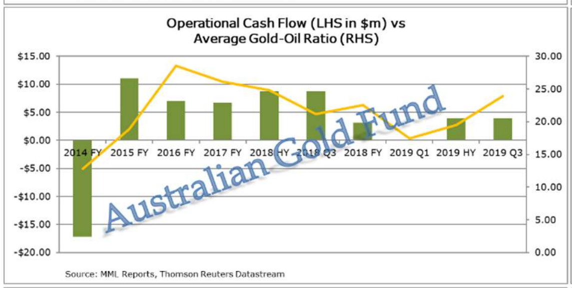
The March quarter has been a challenging one for many gold mining companies despite the gold price trading in the US$1 280-1 345/oz and A$1 790-1 880/oz range. Part of this is caused by the oil price rising 33% from US$45/bbl to US$60/bbl during the quarter, leading to the gold to oil ratio placing some pressure on costs. Since the December 2018 rate rise by the US Federal Reserve that brings the Federal Funds Rate to 2.25-2.5%, the gold price rose to over US$1 300/oz and reached as high as US$1 345/oz in late February. The corresponding rise in the oil price came as a result of higher demand during the northern hemisphere winter as well as increasing geopolitical tension in the Middle East. Furthermore, the oil price rose partly due to reduction in the US inventory. The gold to oil ratio for the March quarter started at a strong 28.3 and gradually fell to 21.5 at the end of the quarter, resulting in an average gold to oil ratio of 23.9 during this period.

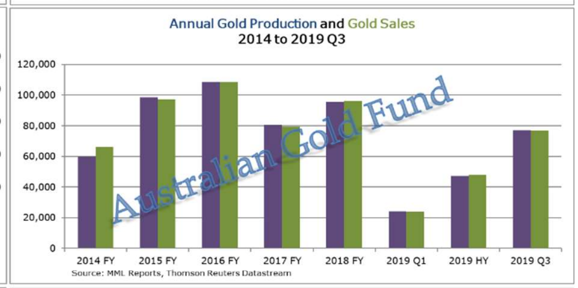
Since the end of the March quarter, the gold price has further weakened while the oil price has increased. The gold to oil ratio has fallen to the 20-21 mark, but there are signs that the gold price is nearing a bottom while the oil price is falling. The months of April and May tend to be cyclical bear periods for gold, with June and July seeing its price recover. This may be repeated in 2019 as the global stock markets are again approaching a peak.

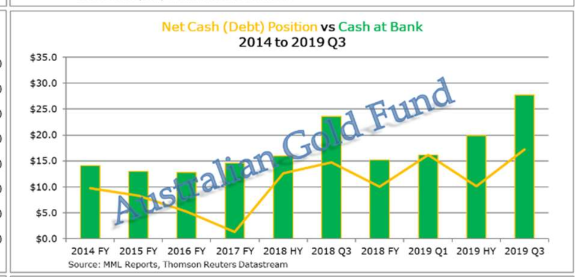
Operational and Financial Performance Charts

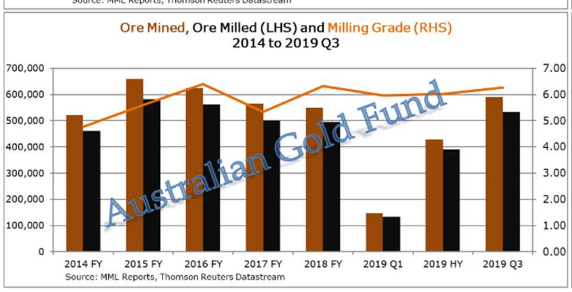


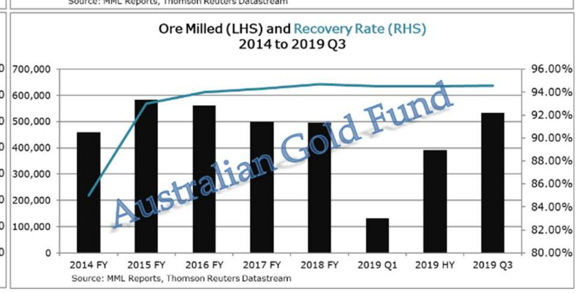








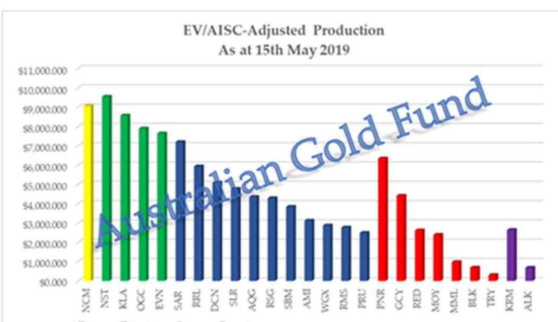


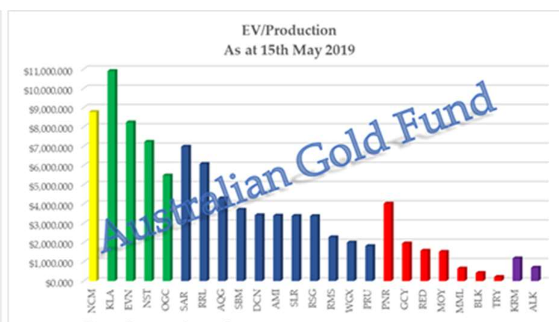


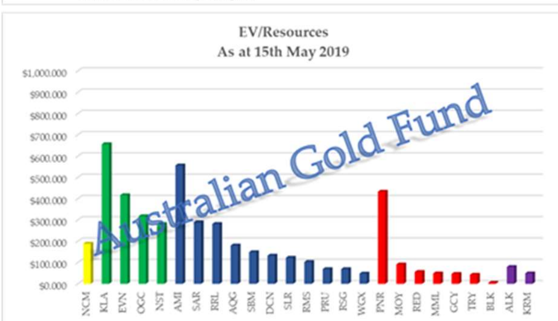
SWOT Analysis

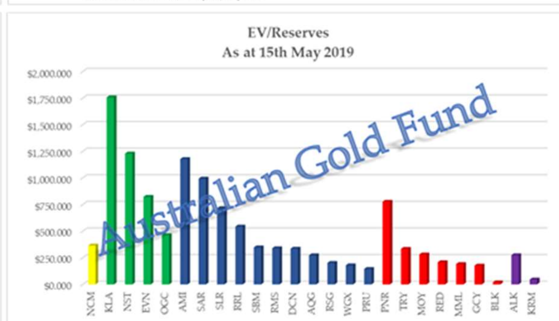
Strengths • High-grade gold mine that is delivering at a rate exceeding 100 000oz p.a. at reducing AISC. • Mining infrastructure appears to be in a good condition to facilitate operational performance in the future.	**Weaknesses** • Mine life is currently around 3.5 years, which is short. Until recently, the resources and reserves have been depleting. • One operating mine in a country that can be unfriendly towards mining companies, implying significant sovereign risk. • Management seems to be focused on the Co-O Mine and has not been engaging in meaningful expansion.
Opportunities • Two other deposits are still undeveloped that may be worthwhile to either exploit or sell.	**Threats** • Government legislating mine shutdown may threaten the company's going concern given they only have one operating mine. • At the current valuation level, the company may be a takeover target.

Peer Comparison









Glossary

The gold mining companies are classified based on their production level on an annual basis. The classification used in this report is as follows – **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 **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 **EV/AISC-Adjusted Annual Production** is a *comparative measure* used for valuing companies in this report and can be used to determine relative value. 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). The AISC-adjusted annual production is measure whereby the annual production of gold per oz is divided by the AISC adjusted by a factor of 1 000. The intuition behind this measure is to value the company by taking into account annual production but giving favourable treatment for lower AISC and penalising for higher AISC. The factor of 1 000 is arbitrarily chosen. As an illustration, if a company produces 250 000oz p.a. at AISC of $1 250, the AISC-adjusted production is 200 000.

The metric is used to determine the Price Range for the company. This range takes into account the baseline range depending on the company's classification, as determined by the annual gold production level. The range can be adjusted upwards or downwards based on other factors that are presented in the SWOT Analysis section.

As a rough guide, the fair value ranges for different mining company classes are as follows:

Major and Large Companies - $6 000-8 000/oz

Mid-Tier Companies - $2 500-5 000/oz

Micro and Junior Companies - $800-1 800/oz

The metric is by no means perfect and other factors should be considered including reserve and resource life, projected production volume and costs, management quality and geographic location. Further, it is of a retrospective nature, focusing on past performance and this may not be a good indicator for future performance.

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.

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.

Disclaimer

Information in this report is not intended to be financial advice and should not be used as such. While every effort is made to ensure the information is reliable and accurate, errors and omissions may still exist. The interpretation of financial reports, market announcements and management commentary is subject to personal views and discretion. Users of this report are highly advised to seek professional financial advice before making their decisions.