PITT STREET RESEARCH

Big River Gold Ltd

Big River, Big Opportunity

Strong economics obtained from DFS

Big River Gold is developing the Borborema Gold Project in north eastern Brazil. In December 2019, a Definitive Feasibility Study (DFS) at Borborema has been completed demonstrating compelling economics of the project, allowing Big River to advance financing discussions with various lenders in the immediate future. Subject to financing, Big River intends to commence mine construction in 2020 and envisages a ~71K oz pa operation with an >10-yr mine life. The first 4.5 yrs will see an average 85K oz pa production at an AISC of US$759/oz.

A potential doubling of the project coming?

Big River had previously proposed, in its February 2018 optimisation of a 2013 Feasibility Study, an open-pit project processing 2 Mtpa. And yet, the most recent DFS provided reduced capital and operating costs with even stronger project economics. However, we see potential for a larger operation once the economics of the new flowsheet have been properly costed. There are sufficient resources to justify a review into expanding production rates up to 4Mtpa, which is the limit approved by the current environmental and construction permitting.

Valuation range of A$0.094–A$0.150 per share

Based on data only provided in the DFS, we have valued Big River on a DCF basis with a range of 9.4 cps base case to 15.0 cps optimistic case. No value is assigned to the exploration upside, likely Stages 2-3 of mining and additional resources and reserves or by-product credits. We see Big River being re-rated by the market based on five main factors: the higher and strengthening gold price; the return to favour of Brazil with international investors; cost improvement identified in the DFS; advanced state of permitting and lack of a tailings dam requirement; and favourable location within Brazil.

Year to Dec (AUD)	2018A	2019F	2020F	2021F	2022F
Sales (m)	0.0	0.0	0.0	0.0	185.0
EBITDA (m) Adjusted	-5.6	0.0	0.0	0.0	100.7
Net Profit (m) Adjusted	-6.1	-0.1	-0.1	-0.1	64.8
Adj. EBITDA Margin (%)	nm	nm	nm	nm	54.4%
RoA (%)	nm	nm	nm	nm	32.1%
EPS before extr. & amort.	-3.1	0.0	0.0	0.0	2.1
EPS	-3.1	0.0	0.0	0.0	2.1
EV/Sales	nm	nm	nm	nm	0.5x
EV/EBITDA	nm	nm	nm	nm	0.9x
P/E	nm	nm	nm	nm	1.0x

Source: Company, Pitt Street Research

Share Price: A$0.022

ASX: BRV

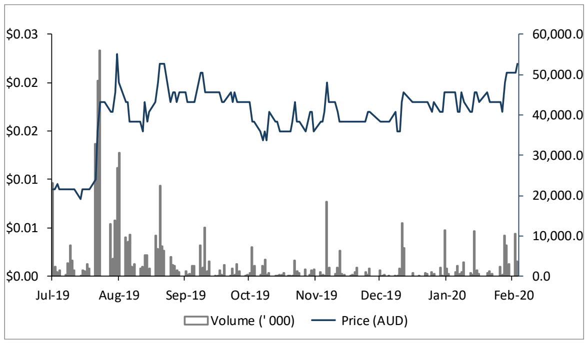
Sector: Materials

12 February 2020

Market Cap. (A$ m)	29.0
# shares outstanding (m)	1,317.2
# share fully diluted (m)	1,576.7
Market Cap Ful. Dil. (A$ m)	34.7
Free Float	100%
12-months high/low (A$)	0.024 / 0.008
Avg. 12M daily volume ('1000)	4,302
Website	bigrivergold.com.au

Source: Company, Pitt Street Research

Share price (A$) and avg. daily volume (k, r.h.s.)



Source: Thomson Reuters, Pitt Street Research

Valuation metrics	
DCF fair valuation range (A$)	0.094-0.150
WACC	9.6%
Assumed terminal growth rate	None

Source: Pitt Street Research

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Profit & Loss (A$m)	2017A	2018A	2019F	2020F	2021F	2022F	2023F	2024F	2025F
Sales Revenue	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**185.0**	**185.2**	**193.7**	**213.9**
Operating expenses	-3.8	-5.6	0.0	0.0	0.0	-84.4	-84.4	-88.2	-97.2
Adjusted EBITDA	**-3.8**	**-5.6**	**0.0**	**0.0**	**0.0**	**100.7**	**100.7**	**105.5**	**116.7**
Depn & Amort	-0.1	0.0	0.0	0.0	0.0	-19.0	-19.0	-19.9	-22.0
Adjusted EBIT	**-3.9**	**-5.6**	**0.0**	**0.0**	**0.0**	**81.7**	**81.7**	**85.6**	**94.7**
Net Interest	-0.4	-0.5	-0.1	-0.1	-0.1	-5.2	-5.2	-5.2	-5.2
Profit before tax (before exceptional)	**-4.3**	**-6.1**	**-0.1**	**-0.1**	**-0.1**	**76.5**	**76.5**	**80.4**	**89.6**
Tax expense	0.0	0.0	0.0	0.0	0.0	-11.7	-11.7	-12.3	-13.7
NPAT	**-4.3**	**-6.1**	**-0.1**	**-0.1**	**-0.1**	**64.8**	**64.9**	**68.1**	**75.9**

Cash Flow (A$m)	2017A	2018A	2019F	2020F	2021F	2022F	2023F	2024F	2025F
Profit after tax	0.0	0.0	-0.1	-0.1	-0.1	64.8	64.9	68.1	75.9
Depreciation	0.0	0.0	0.0	0.0	0.0	19.0	19.0	19.9	22.0
Changes in working capital	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Other operating activities	-3.7	-5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating cashflow	**-3.7**	**-5.2**	**0.3**	**0.3**	**0.3**	**84.2**	**84.3**	**88.4**	**98.3**
Payments for exploration and evaluation	-1.6	-2.1	0.0	0.0	-146.1	-1.9	-1.9	-1.9	-1.9
Other investing activities	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Investing cashflow	**-1.0**	**-1.8**	**0.0**	**0.0**	**-146.1**	**-1.9**	**-1.9**	**-1.9**	**-1.9**
Equity raised (repurchased)	2.9	5.7	0.0	0.0	43.8	0.0	0.0	0.0	0.0
Net proceeds from borrowings	3.0	-0.1	0.0	0.0	102.3	0.0	0.0	0.0	0.0
Other financing activities	-0.1	-0.7	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Net change in cash	1.2	-2.1	0.4	0.4	0.4	82.3	82.4	86.5	96.4
Cash at End Period	2.6	0.4	0.8	1.2	1.6	83.9	166.3	252.8	349.2

Balance Sheet (A$m)	2017A	2018A	2019F	2020F	2021F	2022F	2023F	2024F	2025F
Cash	2.6	0.4	0.8	1.2	1.6	83.9	166.3	252.8	349.2
Total Assets	31.5	21.7	22.2	22.7	169.3	234.6	300.0	368.6	445.0
Total Liabilities	6.9	3.8	4.4	4.9	107.7	108.2	108.7	109.2	109.7
Shareholders' Funds	24.5	17.9	17.9	17.8	61.6	126.4	191.2	259.4	335.3

Ratios	2017A	2018A	2019F	2020F	2021F	2022F	2023F	2024F	2025F
Net debt/Equity	1.2%	4.5%	2.8%	0.9%	165.8%	15.7%	nm	nm	nm
Total Cash / Total Assets	8.4%	2.0%	3.7%	5.4%	1.0%	35.8%	55.4%	68.6%	78.5%
Return on Equity (%)	nm	nm	nm	nm	nm	69.0%	40.8%	30.2%	25.5%

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Introducing Big River Gold, ASX: BRV

Big River Gold is a Perth-based company developing the Borborema Gold Project in north eastern Brazil, of which it owns 100%[1]. A Definitive Feasibility Study (DFS) at Borborema was the most recent report completed on-time and released on the ASX on 23 December 2019 showing very positive economics and robustness of the Borborema project. A completed DFS will now enable Big River Gold to advance project financing discussions with various lending institutions targeting completion of project financing in Quarter 2. Subject to financing, BRV intends to commence mine construction in 2020 and envisages a ~71,000 oz p.a. operation with an >10-year mine life recover 729,000 oz. The first 4.5 years will see 380,000 oz produced.

DFS delivered even stronger project economics on the Borborema project than the previous Optimisation Study

Big River Gold has been working on Borborema since 2010, when it first acquired the project. The company announced its first pre-feasibility study results in September 2011 along with a JORC resource estimate of 2.43M ounce gold. Feasibility Study results for a 4Mtpa project were announced in 2013 which estimated a JORC reserve of 1.61Moz gold while the Definitive Feasibility Study came out in December 2019 which looked at a staged 2Mtpa throughput, with Stage 1 aiming to deliver 784Koz gold with an average grade of 1.22 g/t. BRV stock was suspended from the ASX in September 2018 when it was previously listed as Crusader Resources Ltd, at which time the company moved to sort out its strategy, capital structure and funding. A new management team was installed in March 2019, the company removed itself from the London AIM listing, reduced corporate and management overheads across the board and established a strong financial footing for the company and its refocus on the development of the Borborema project. The company's financial standing was improved through disposal of non-core assets, raising $1.5m in a placement at 1.2 cents per share in July 2019 and in September 2019 Big River's major shareholder, the Copulos Group, raised its stake to 38% after the conversion of $1.5m in notes[2] which rendered the company debt-free. Shortly thereafter BRV sold its 5.6% stake in Meteoric Resources to realise $2.75m (BRV retains the opportunity to receive a further $1.5m in shares from Meteoric subject to certain milestones including JORC resource targets and decision to mine).

BRV is now debt free and with sufficient cash to fund operations through to mid-2021. With the receipt of a positive DFS in December 2019, BRV is now in the position of advancing discussions with various financial institutions that have expressed interest in providing financing and support for Borborema project.

If Big River Gold is this good, why is currently capitalised at only A$22.4m/US$15.2m? We think the very high capex for a 4Mtpa operation and the low gold price in 2013, as well as the company's decision to move on to other projects, have all contributed to the current low market capitalisation. There was project fatigue among shareholders and continued equity raisings to support high overheads. BRV went from a market cap of ~$170M in a steady downward drift over the last few years until the current leadership team stepped in and rejuvenated it. With the DFS now complete demonstrating compelling project economics, a business-friendly and mining-friendly government in office in Brazil and the price of gold rising since late 2015, we believe the stock is in a position to re-rate from here. In October

[1] While Big River's primary focus today is Borborema, it understands the opportunity to monetize on lithium projects owing to the strong current market demand. BRV holds 100% interest in the Manga Lithium project (previously explored for tin and indium), located in the north east of Goias state in central Brazil. It also owns the Gaia Lithium project, located in the Gonçalo-Guarda region of northern Portugal. The Gaia deposit is a lithium pegmatite and the exploration licence consists of two nearby exploration blocks with a total area of ~89 sq km.

[2] At 1 cent per share.

and September 2019 Executive Chairman Andrew Richards was an on-market buyer of stock[3].

Ten reasons to look at Big River Gold

Completion of the DFS enhances Big River to secure the necessary financing required for the Borborema Project

Mica and other by-products may further add further value to Borborema

1) The Borborema mine is an operationally de-risked, large, open-pittable gold project in North-Eastern Brazil which is development ready. No tailings dam is required which further de-risks the operation in Brazil.
2) The DFS recently released in December 2019 provided compelling economics and robustness of the Borborema project, which will enable Big River to advance project financing discussions with various financial institutions in the immediate future. This positive outcome will earn the stock a re-rating.
3) The project has access to vital infrastructure such as grid power, on-site water storage, logistical support with bitumen road access, and skilled mining workforce owing to its proximity to the mining town of Currais Novos.
4) The new government under the leadership of Jair Bolsonaro is considered positive for Brazil's mining industry owing to his pro-business policies. His efforts to simplify Brazil's mineral prospecting process as well as open up indigenous reserves to mining will favourably impact BRV. The project also benefits from a conducive regulatory environment. 'SUDENE' tax concessions are expected to be available which would result in an overall tax rate of 15.25%. Besides, low government mineral royalties, currently stands at 1.5%, bode well for the company. The government of Rio Grande do Norte state is also providing incentives and assistance for the project.
5) Gold prices are off their lows and have soared ~17% in 2019 leading to better project economics. Importantly, the latest study review and preliminary optimisation released in 2018 was based on conservative assumption of lower gold price of US$1400/oz. The capacity to improve value through by-product credits, such as mica, about which BRV made an announcement in November 2019[4], is also strong.
6) Average EBITDA at a gold price of US$1400/oz is approximately A$78M pa while at US$1500/oz that increases to A$88M pa.
7) With the key environmental and installation permits secured, the site is ready to commence project development. Given that historically permitting for mining projects has been a lengthy process, this is a major positive for Borborema. Dry stacking of de-watered tailings, thereby removing the need for a tailings dam has assisted with the approvals process.
8) BRV has a new management team with an extensive mine development experience. Importantly, its critical operational and technical personnel are based full time in Brazil.
9) BRV has also strengthened its Board with senior well-known resource and finace industry professionals (John Cathcart and Beau Nicholls)
10) With the conversion of convertible notes worth A$1.5m by the Copulos Group, BRV's major shareholder, the company has no debt on its books providing significant leverage. Of late, the company has divested non-

[3] See Big River's 26 September 2019 Appendix 3Y filing with the ASX.
[4] See Big River's market release dated 12 November 2019 and headlined '*Potential benefits from by-product credits & DFS update*'.

core assets including Juruena and Nova Astro and has renewed focus to accelerate the development of its flagship asset, Borborema Gold Project.

11) We believe BRV is currently undervalued. We value the company at 9.4 cents per share base case and 15.0 cents per share optimistic case (post-equity financing) using a DCF approach with conservative pricing outlook on gold (input range US$1,500-$1,600/oz) and conservation assumptions on cost of capital.

Borborema Gold mine — a de-risked and open-pittable project

BRV acquired the Borborema project in 2010 for A$2.4m

The flagship project of BRV is located in the Seridó area of the Borborema province, within the state of Rio Grande do Norte (Figure 1) in north-east Brazil. It is an operationally de-risked, large, open-pittable gold project with a resource of 2.43Moz (million ounces) @ 1.1g/t (grams per ton) gold. In August 2010, the company acquired 100% of the Borborema gold project for ~A$2.4m. Borborema consists of three mining leases covering a total area of 29 km². The area covers an old heap leach gold project from the 1980s. Having completed the definitive feasibility study in December 2019, the company is now expected to commence construction in 2020 once financing is secured.

Figure 1: Location of Borborema Gold project in Brazil

Source: Company

Recent DFS delivers even stronger economics than the previous Optimisation Study

BRV completed the most recent DFS on Borborema in December 2019 demonstrating an economic viable and robust project with a revised capital expenditure (excluding contingency) of US$87.97m for its Stage 1 production, delivering an after-tax NPV8 of US$203M with a 41.8% IRR. With a JORC resource totalling 69Mt and a Reserve of 42Mt for the Borborema project (Stages 1-3) the DFS has scheduled only 20Mt of the Reserve for mining in Stage 1 leaving significant upside potential remaining for future mining. Based on a planned 2Mtpa production capacity, this allows for a >10-year life of mine for Stage 1 mining, delivering a total output of 20Mt that contains 784,000 ounces gold with an average grade of 1.22 g/t. The first 4.5 years sees higher grade ore (average 1.5 g/t Au) preferentially treated with mill-feed subsequently supplemented from medium grade stockpiles. This coincides with a reduction of costs as mining activities scale down. It is further noted in the DFS that the residual resources and reserves outside of the 20Mt defined for Stage 1 will be potentially exploited in Stage 2 and 3 of the mining and this will be considered in early years of Stage 1 operation.

Compared to the figures released in the February 2018 Optimisation Study, this DFS provided even more compelling economics (Figure 2) which altogether translate to a more valuable outlook for BRV:

Figure 2: Results comparison between DFS and Optimisation Study

Financial Parameters	DFS (Dec 2019)	Optimisation Study (Feb 2018)	Changes (%)
Upfront capital costs* (USD M)	87.9	93.4	-6%
Total cash costs (USD/oz)	642	737	-13%
All-In Sustaining Cost (USD/oz)	839	908	-8%
Post-tax NPV$^{8\%}$ (USD M)	203	118	+72%
IRR (%)	42%	31%	+11%
Free cash flow life-of-mine (USD M)	328	243	+35%

**Excluding contingency cost*

Source: Company, Pitt Street Research

As can be seen above, the DFS updates demonstrated further improved economics over the earlier Optimisation Study. It has identified an almost 6% decrease in capex to US$87.9m and a 13% decrease in total cash operating cost to US$642 per ounce of gold produced. Furthermore, there has also been a close to 8% reduction in All-In Sustaining Cost (AISC). As a result of the cost revisions, the total free cash flow over the mine life has seen a material increase of ~35%, driving the total amount to US$328m. When considered altogether, those improvements in financial parameters have improved the net present value (NPV) of the Borborema project by US$5m to US$203 and also uplifted the internal rate of return (IRR) by 11% to 42%, a remarkable improvement over the results released in the Optimisation Study.

Furthermore, DFS notes that prior to construction commences, BRV is also in the process of investigating additional opportunities to pursue that may further reduce costs and construction schedule which is currently set at around 23 months.

Strategic benefits of the Borborema project

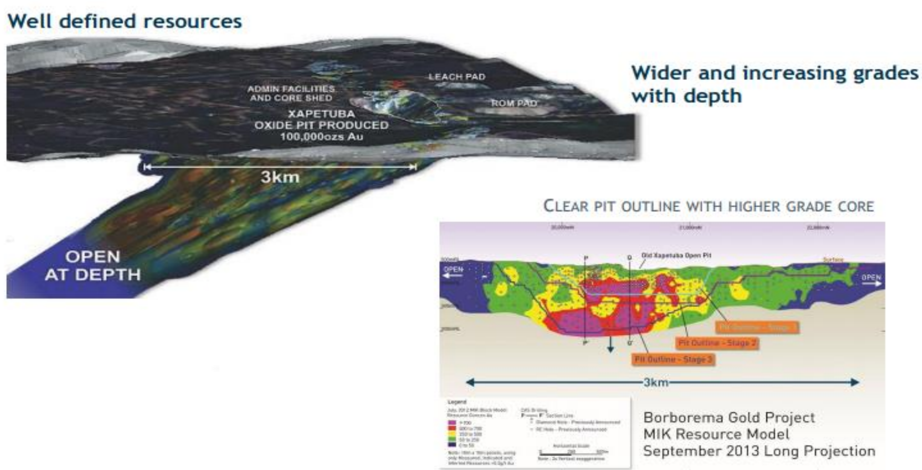
The project has a number of qualities that provide strategic benefits to BRV:

- **Favourable location and infrastructure.** The Borborema project is located 30km east of the mining town of Currais Novos (Figure 3) which provides an access to skilled mining workforce. The mine is also easily accessed from coastal capital, Natal, through the BR-226 federal highway, which bisects the property. Natal has an international airport and is situated at a two-hour drive (140 km west) from the project. Besides, the project has potential access to grid power at the low cost of US$0.08/kWh. There are no land usage issues at Borborema, with BRV owning 100% of the land covering the whole tenement. No local communities are impacted and there are no indigenous, heritage or environmental issues. The process water will be collected from a storage dam and will be supplemented by wastewater from the nearby town of Currais Novos which will be treated on site.

Figure 3: Borborema site layout

Source: Company

Figure 4: Borborema – Orebody and Pit Outline



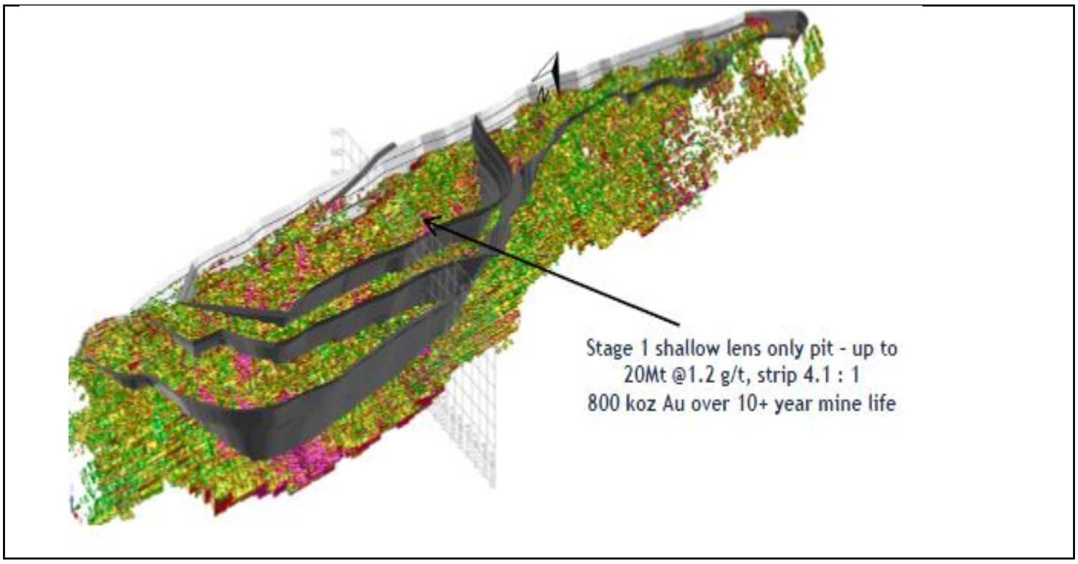
Source: Company

- **Favourable geology.** Borborema project lies within the Seridó Fold Belt, characterised by banded arkosic metapelitic micaceous schists. Gold mineralisation is found within a north-north-east-trending structure that forms part of the Santa Mônica shear zone. The mineralised zones are associated with mica and re-crystallised sulphides, mostly pyrrhotite with minor amounts of pyrite, chalcopyrite, sphalerite and galena. The mineralised zone strikes from north-east to south-west and dips at ~35˚ south-east to below a depth of 300m which is the limit of drilling. The nature of the mineralisation at Borborema makes the ore amenable to conventional processing techniques where a recovery of at least 93% is expected with low reagent consumption. Borborema's processing is based on a carbon-in-leach (CIL) route.

The deposit is located within a major shear zone with complex re-activated structures hosting the ore body which is consistently thick (approximately 35m) and remains open in all directions including at depth where high grade drill intercepts have been encountered (Figure 4). The resource and reserve have been established and the project significantly de-risked through the 95,000m of drilling which has been undertaken highlighting a continuous and consistent single ore body, ~3.5km long with a higher grade core.

The Borborema project is mineable as an open pit and scalable with staged developments. While management's development strategy in Stage 1 is focused on shallow lens (Figure 5) with a strip ratio of ~4.1:1, during Stage 2, expansion to 4Mtpa (metric tons per annum) from 2Mtpa will provide an access to the deeper (and still open) reserves and resources extending mine life beyond 10 years.

Figure 5: Development strategy in Stage 1



Source: Company

- **A large resource base.** In addition to the most recent DFS completed, BRV has completed about 3 other feasibility and optimisation studies for the Borborema gold project since its acquisition in 2010. These studies were conducted in order to maximise the value of the gold project. While the original feasibility study (FS) considered 4Mtpa mining with a capex of US$301m and strip ratio 6.6:1, optimized plan of 2Mtpa has a capex of US$93m (without contingency) and strip ratio of 4.2:1, while the latest DFS of 2Mtpa has an even lower capex of US$88m (without contingency). In March 2018, the company updated its Borborema ore reserve in order to comply with the JORC[5] 2012 code. Total proven and probable reserves at Borborema stand at 1.61Moz (Figure 6) of gold at a grade of 1.18g/t. Total resource (including inferred) is 2.43Moz of gold at a grade of 1.10g/t. Importantly, reserves were calculated in 2012 using a 0.4g/t and 0.5g/t cut-off for oxide and fresh material, respectively, coupled with a gold price of US$1,300/oz.

Figure 6: Mineral reserves at Borborema

Borborema Gold Project - Ore Reserve				
Category		**Tonnes (Mt)**	**Grade (Au g/t)**	**Gold to Mill (koz)**
Proven	Oxide	0.65	0.80	17
	Fresh	7.26	1.25	292
Probable	Oxide	1.68	0.70	38
	Fresh	32.82	1.20	1,260
Total		**42.41**	**1.18**	**1,610 (1.61 Moz)**
Mineral Resource by Multiple Indicator Kriging (MIK)				
Category	**Cut-off grade**	**Tonnes (Mt)**	**Grade (Au g/t)**	**Contained Gold (Moz)**
Measured	0.40	9.8	1.09	0.34
	0.50	**8.2**	**1.22**	**0.32**
	0.60	6.8	1.35	0.30
Indicated	0.40	53.1	0.99	1.70
	0.50	**42.8**	**1.12**	**1.55**
	0.60	34.8	1.26	1.41
Total Measured + Indicated	0.40	62.9	1.01	2.04
	0.50	**51.0**	**1.14**	**1.87**
	0.60	41.7	1.27	1.70
Inferred	0.40	23.2	0.87	0.65
	0.50	**17.6**	**1.00**	**0.57**
	0.60	13.6	1.14	0.49
Total Mineral Resource	0.40	86.1	0.97	2.69
	0.50	**68.6**	**1.10**	**2.43**
	0.60	55.2	1.24	2.20

Source: Company

- **Favourable project economics.** As detailed in the earlier section of this note, BRV completed a DFS for Borborema (Figure 7) in December 2019 demonstrating robust project economics which include attractive capex and opex levels through mine planning and plant optimisation that would ultimately result in higher free cash flows throughout the mine life. With more compelling project economics, we believe the upsides from the DFS outcome will drive a re-rate of the stock as the company is now in a stronger and better position to secure the necessary funding required to commence construction of the Borborema project.

[5] The Joint Ore Reserves Committee (JORC) code is the Australian professional code of practice that sets minimum standards for public reporting of exploration results, mineral resources and ore reserves.

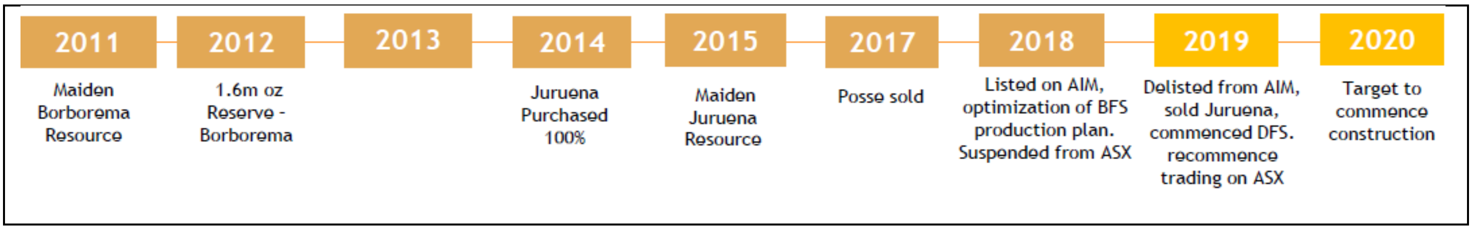
Figure 7: DFS Results Summary

Key Parameters	
Mineral Resources (reported above 0.5g/t Au cut off, 2013)	68.6Mt @ 1.10 g/t Au (2.43Moz)
Stage 1 Ore Reserve Scheduled to be mined in DFS	20.0Mt @ 1.22 g/t (784,480 oz)
Open pit mining and 2Mtpa SAG & Ball mill	
Capital Costs	
Processing plant Capital Costs	US$ 58.61M
Non Processing infrastructure and Owners costs	US$29.36M
Contingency	US$ 11.36M
Total Capital Summary	**US$ 99.33M**
NPV (8%, Pre-Tax)	US$ 218M
NPV (8%, Post-Tax)	US$ 203M
IRR (Pre-Tax)	43.6%
IRR (Post-Tax)	41.8%
Payback from start of production	2.4 yrs
Life of Mine C1 Cash Costs	**US$642/oz**
Life of Mine AISC costs	**US$839/oz**
Production Summary	**LOM**
Mine Life (from commissioning date)	10.2 years
Strip ratio (waste (t): Ore(t))	4.2
Mill throughput (total)	20.0 Mt
Grade	1.22 g/t Au
Recovery	92.5%
Gold produced – over Life of Mine	729,374 oz

Project Economics, US$M	LOM
Study Gold price	$1,400/oz
Gross Revenue LOM	$ 1,021M
Operating costs LOM	$ 494M
Capital:	
Capital – Project Plant (inc contingency)	$ 99.3M
Capital – sustaining and mine closure costs	$ 21.0M
Working capital – Mine establishment pre-production	$ 6.6M
Working capital – Other	$12.7M
EBITDA	$527.3M
NPAT	$328.3M

Source: Company

Figure 8: Clear path to production since 2018



Source: Company

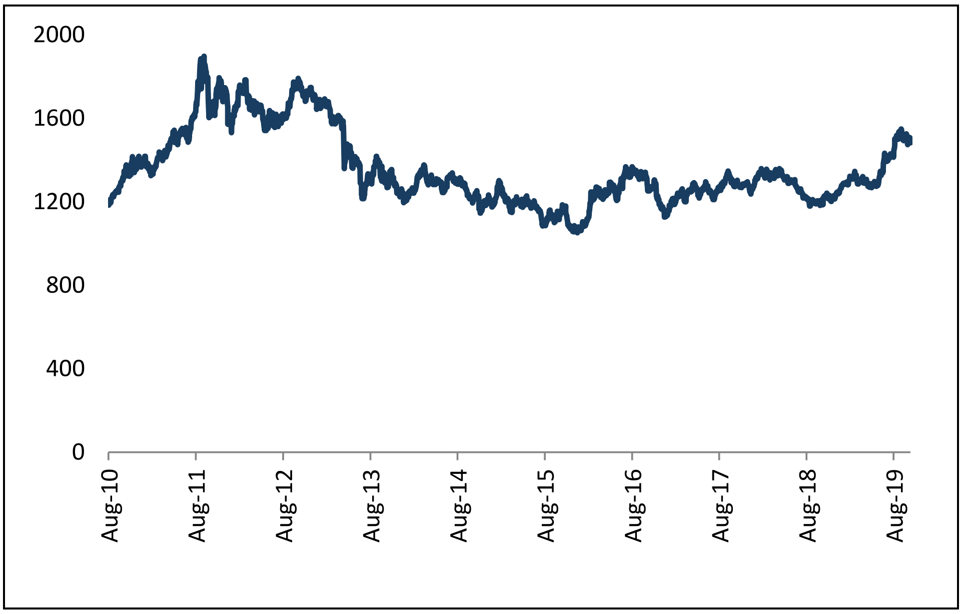
Unfavourable gold prices played spoilsport in project development

BRV acquired Borborema in August 2010 and commenced drilling in September 2010. It completed the pre-feasibility study (PFS) in 2011 confirming healthy project economics. The study evaluated a 3Mtpa open cut mining operation with a standard beneficiation circuit that produces up to 180koz pa over 9 years and an upfront capex of US$169m. In February 2012, BRV commenced the bankable feasibility study (BFS) to further assess the financial viability of the Borborema Project. A maiden ore reserve of 1.61Moz (Figure 8) of gold grading 1.18g/t was announced in November 2012.

By December 2015, the price of gold had fallen to a low of ~US$1,050 per ounce

However, in November 2013, BFS was put on hold, owing to the weak gold prices. While the price of gold peaked at ~US$1,900/oz in September 2011 (Figure 9) mainly due to the debt market crisis in Europe and the Standard & Poor's downgrade of the US credit rating, gold prices hovered around US$1,700 during 2012 before entering a steep decline in 2013. Further, improved market sentiment and increased risk appetite from investors saw gold prices continue to decline throughout 2014 and 2015 to ~US$1,050 in December 2015. Given the plummeting gold prices, the company shifted its focus towards the Posse Iron Mine, and consequently reduced funding to the development of the Borborema Project.

Figure 9: Gold prices (US$ per ounce) tanked during 2013-2015



Source: Thomson Datastream, Pitt Street Research

During 2016, gold prices slowly regained a bit of its lost lustre owing to the heightened uncertainty surrounding the US Presidential election and the United Kingdom's exit from the European Union. In sync with the improvement witnessed in gold prices, during Q1 2016, BRV announced it would re-commence its studies into developing the Borborema Project. However, the project's development scope was modified to consider a staged approach based on an initial 2Mtpa vs. 4.2Mtpa throughput rate as per the previous BFS draft work. Importantly, the previous technical studies undertaken for a large scale 4.2Mtpa project at Borborema delivered suboptimal results, with 42.4Mt of ore mined at a strip ratio of 6.6:1.

In April 2017, Borborema received the Pre-Licence (Licença Previa or LP) from Rio Grande do Norte State Government Environmental Department (IDEMA). The LP, focusing on the environmental impact of the mine, is considered the most important licence in the licensing process.

In February 2018, BRV produced the revised optimisation study for Borborema with a better project economics. It also updated its Borborema ore reserve in order to comply with the JORC 2012 code. In August 2018, BRV announced an update on BFS metallurgical test work at the Borborema project and the evaluations suggested that upfront capital expenditure would be reduced, as the ore is amenable to single stage SAG mining.

Importantly, in April 2019, the company received the installation permit (LI) from IDEMA. This marked a key milestone for the company as licensing is one of the most cumbersome and time-consuming hurdles in establishing a new mine in Brazil. It permits an operation producing and processing up to 4.2Mtpa.

Borborema project is poised to take off

BRV intends to commence mine construction in 2020

With the receipt of all material permits required to commence construction, the Borborema project is at a critical juncture in its development and in December 2019 the Definitive Feasibility Study (DFS) was completed which demonstrated strong and robust economics for the project at a conservative gold price of US$1400 per ounce. The DFS returned significantly reduced capex and production costs vs the 2018 Optimisation Study, coupled with improved economics. This enables the company to advance discussions with potential project financiers to seek construction finance by Q2, 2020. BRV intends to commence mine construction in 2020.

Importantly, with a new management team, reduced cash burn at corporate and operational level, a recent placement (A$1.5m) and no debt on its books, the company has successfully funded the completion of the DFS and retains a strong cash position.. The company has divested non-core assets including Juruena and Nova Astro and has renewed focus to accelerate the development of the core asset (Borborema Gold Project). Even the favourable gold prices would support the project economics. Gold prices have climbed nearly 17%, since touching a 2019 low in early May, supported by an increasingly dovish stance from major central banks, escalation in the US-China trade war and Brexit uncertainty.

Conducive political and regulatory environment in Brazil will support growth plans

Recent indicators of economic activity suggest that the Brazilian economy is gradually undergoing recovery after experiencing a severe recession in 2015-2016. Brazil has avoided recession this year, growing in the second quarter after the economy contracted in Q1 2019. Economic recovery in Brazil was largely supported by strong fixed investment and construction activity in Q2. However, high unemployment rate along with highest gross debt remain a concern.

The current president Jair Bolsonaro, took office in January 2019, proposed economic reforms, including trade liberalisation and lower tax burden. He believes in a free market agenda by carrying out privatisation, streamlining rules and making it easy to do business. During the last year's presidential campaign, Bolsonaro pledged to open up the Amazon to mining and agriculture and crack down on environmental NGOs. He has also advocated to legalise gold panning and open up mineral-rich indigenous lands to mining.

With the landmark pension reform under way, the central bank of Brazil mulls to deregulate the financial sector. In the 12 months to July, foreign direct investment (FDI) in Brazil reached ~US$95bn, up from US$67bn the previous year. While in the 12 months to August, FDI dropped to US$71bn, ~3.91% of GDP, it easily covers the US$33.85bn current account gap.

Brazil has a well-established mining industry with several major international mining companies operating successfully over a long period. The country benefits from well understood and internationally comparable mining regulations. Importantly, Brazil is the 12th largest gold producer globally and has ambitious plans for the exploitation of the country's natural resources. With stable political environment in Brazil, the current government of Bolsonaro, with a pro-business micro agenda, is expected to provide business-friendly regulatory environment to BRV.

Bolsonaro's pro-business agenda to favour BRV along with attractive regulatory and taxation environment

SUDENE [6] tax concessions to be available. Borborema qualifies for a corporate tax rate of 15.25% for a period of 10 years, reduced from 34%. This is due to a federal government economic stimulus scheme called SUDENE which provides significant benefits for businesses operating in the north east of Brazil, including Rio Grande do Norte. This scheme was introduced to boost economic activity in a relatively impoverished area of Brazil. Owing to the prioritisation of the economy projects by the region, the project enjoys strong local and government support.

Low government mineral royalties. Government royalty in Brazil on gold projects is a low 1.5%. Importantly, Brazil's royalty tax is considered generous when compared to international standards, with some developed nations applying royalty rates of up to 12%.

[6] SUDENE stands for Superintendence for Development of the Northeastern Region

Comparable companies in the global gold space including players operating in Brazil

With the soaring gold prices, the exploration and development activity of the multiple upcoming global gold projects is set to take off. In Figure 10 below, we have compared BRV's flagship Borborema mine with other gold explorers/developers/producers operating in Brazil. Figure 11 displays a comparison amongst ex-Brazil gold explorers/developers. Altogether we have focused on pre-production gold juniors in various geographies including Brazil, West Africa, Canada, Australia, and Indonesia.

Aurizona Gold Mine Project – Canadian-based mining company, Equinox Gold Corp (TSX:EQX) owns the Aurizona Gold Mine Project located in Brazil. It is an open-pit gold project with average life-of-mine gold production estimated at 136,000 ounces of gold per year. Construction has been completed with first gold poured on May 14, 2019 and commercial production achieved on July 1, 2019. It has an inferred resource of 1.1Moz, within which is contained reserves of 971Koz. The company believes the Aurizona mine life can be extended with exploration success, and drilling is underway to test high-priority drill targets that could extend mineralization up to 4.5 km to the west of the existing pit. Moreover, the company is also examining the potential to develop an underground mine at Aurizona.

Jacobina Gold Project – Yamana Gold Inc. (NYSE:AUY) is a Canadian-based gold producer that holds 100% stake in the Jacobina Gold Mine Project, located in Bahia state in northeast Brazil. The project consists of a complex of underground gold mines and a 6,500 tonnes per day carbon-in-pulp processing plant. As at 31 December 2018, it has a measured and indicated resource of 3.2Moz, within which is contained reserves of 2Moz. In 2018, the project has delivered a production of ~145Koz gold. The company has a strategic production objective of 150,000 ounces of gold per year.

Paracatu Gold Project – Canadian-based Kinross Gold (NYSE:KGC) is a senior gold mining company with a diverse portfolio of mines and projects in the US, Brazil, Chile, Ghana, Mauritania, and Russia. The company has 100% ownership over its Paracatu Gold Project situated in Brazil's Minas Gerais region. As at 31 December 2018, its proven and probable reserves totalled 7.9Moz. The project is an open pit mine and is expected to process approximately 55Mt of ore per year. In 2018, the mine achieved record annual gold production of ~522Koz. Mining operations are expected to conclude in 2030.

Tocantinzinho Gold Mine Project – Eldorado Gold (ELD:TSX) is a Canadian mid-tier gold and base metals producer with 100% stake in the Tocantinzinho Gold Mine Project. It is an open pit gold project located in northern Brazil with an expected mine life of ~10 years. At 30 September 2019 the project has recorded gold mineral resources of 2.2Moz within which its contained reserves totalled 1.8Moz. In Q2 2019, an updated technical report was completed highlighting some project economics such as an IRR of 13.4% and an NPV of $216 million based on a 5% discount rate and a $1300 per oz gold price. Development capital spending in 2019 is estimated to be $3-5 million.

Turmalina Gold Mine Project – Headquartered in Canada, Jaguar Mining Inc. (TSE:JAG) is a junior gold mining, development, and exploration company operating in Brazil with three gold mining complexes located in the state of Minas Gerais, Brazil. The Turmalina Gold Mine Project is one of the company's key operating assets. It is an underground mine utilising the sub-level stoping mining method with rockfill and paste fill as well as some areas of the mine previously using mechanized cut and fill mining method. At 31 December

2018, it has total resources of 725Koz within which its contained reserves totalled 228Koz.

Caeté Complex Consolidated Mine Project – This project is also owned by Jaguar Mining Inc. (TSE:JAG) which is comprised of two underground mines (Roça Grande Mine and Pilar Mine) that utilize a combination of mechanized cut and fill and sub-level stope mining methods. On the Pilar Gold Mine, as at 31 December 2018, its resources totalled 827Koz, within which is contained reserves of 211Koz. The Roça Grande Mine has been on temporary care and maintenance since April 2018.

Volta Grande Gold Project – Based out of Canada, Belo Sun Mining (TSX:BSX) is focused on the development of its 100% owned Volta Grande gold project located in Pará State, Brazil, about 60 km south-east of the city of Altamira. The project covers over 2,400 hectares within the Tres Palmeiras greenstone belt (+120km strike). It comprises Upper Proterozoic metavolcanic and metasedimentary rocks. The project is mainly composed of two target areas, namely North and South blocks. Primary gold mineralization is associated with altered diorite within a 300m wide alteration zone. The project consists of an open-pit, has a Measured and Indicated gold mineral resource of 5Moz along with Inferred resource of 1.15Moz. Further, the mine is estimated to contain proven and probable reserves of 3.8Moz of gold. The company is expected to submit the indigenous study to FUNAI (Brazil's indigenous affairs agency) in 2019.

Figure 10: Key gold mines in Brazil comparable to the Borborema mine

Project	Company	Region	Mine Type	Total Resource (Moz)	Grade (g/t)	Total Reserve (Moz)	% owned
Aurizona Gold	Equinox Gold Corp	Brazil	Open-pit	**1.8**	1.5	1.0	100%
Volta Grande Gold	Belo Sun Mining	Brazil	Open-pit	**6.1**	1.0	3.8	100%
Jacobina Gold	Yamana Gold	Brazil	Underground	**4.2**	2.3	2.0	100%
Paracatu Gold	Kinross Gold	Brazil	Open-pit	**3.4**	0.4	7.9	100%
Tocantinzinho Gold	Eldorado Gold	Brazil	Open-pit	**2.2**	1.4	1.8	100%
Turmalina Gold	Jaguar Mining	Brazil	Underground	**0.7**	5.1	0.2	100%
Pilar Gold	Jaguar Mining	Brazil	Underground	**0.8**	3.7	0.2	100%
Borborema Gold	**Big River Gold**	**Brazil**	**Open-pit**	**2.4**	**1.2**	**1.6**	**100%**

Source: Company filings, Pitt Street Research

Back River Gold Project – Canada-based Sabina Gold & Silver (TSX:SBB) holds 100% stake in Back River Gold Project, located in southwestern Nunavut, ~75km southwest of Bathurst Inlet, Canada. Gold mineralisation is located within two principal areas of the Back River property: the Goose site and the George site. The Goose site consists of four main deposits that contain predominantly structurally-controlled gold mineralisation: Goose Main, Echo, Umwelt, and Llama. Most of the known gold mineralisation identified is associated with quartz veins, silicification and shearing. The deposits host observed gold mineralisation in banded iron formations. The deposit is situated within the lower iron formation and underlying sediments beneath the Goose antiform structure. It has a mineral resource of 7.2Moz, within which is contained an ore reserve of 2.5Moz. With predevelopment construction underway, the project is advancing towards production mineral royalties.

Sanbrado Gold Project – West African Resources (ASX:WAF) has 90% interest in the Sanbrado Gold project, located 90km east-southeast of Ouagadougou, the capital of Burkina Faso. This high-grade mining project extends in an aggregate area of 116km². It lies on the northeast-trending volcano-sedimentary belt bounded to the east by the Markoye Fault. The gold deposit is associated with the Lower Proterozoic system of the Birimian, which hosts metavolcanics, granites, and metasedimentary rocks. It has a mineral resource of 3.1Moz, within which is contained a combined ore reserve of 1.7Moz. The construction works commenced in late 2018 and is scheduled to pour first gold in mid-2020.

Wa Gold Project – Australia-based Azumah Resources (ASX:AZM), owns 53.5% stake, is focused on exploring and developing its Wa Gold Project in the Upper West region of Ghana, West Africa. It holds 2,400km² of licences that include over 150km strike of Birimian terrain. The project is located ~10km away from the regional capital of Wa. Systematic exploration has identified three main deposits: Kunche, Bepkong and Julie. The project covers most of the Wa-Lawra greenstone belt located in northwest Ghana, along with a small area east of Wa. The Wa-Lawra belt hosts upper Birimian metasediments, volcaniclastics and subordinate metavolcanics. A north-north-west striking sinistral shear system within Birimian metasediments hosts the Kunche deposit with a strike length of 1.4km. It has 2.8Moz of mineral resource with a defined ore reserve of 1Moz. It is presently focused on completing a feasibility study in Q1 2020.

Awak Mas Gold Project – Based out of Australia, Nusantara Resources (ASX:NUS) owns a 100% interest in the Awak Mas Gold Project, situated 45km from Belopa on the east coast of South Sulawesi Province, Indonesia. The project is made up of three deposits namely Awak Mas, Salu Bulo, and Tarra. It hosts a high level, low sulphidation hydrothermal system that features a strong sub-vertical fracture control. Mineralisation at the project occurs in a cover sequence of meta-sedimentary rocks, and a basement sequence of diorites and biotite dominant schists. The project currently hosts an open-pit Indicated and Inferred Resource of 2.0Moz and an ore reserve of 1.1Moz. DFS was completed in October 2018, which confirmed a robust, long-life and low cost gold project.

Sihayo Pungkut Gold Project – Australia based, Sihayo Gold (ASX:SIH) owns 75% stake in the Sihayo Pungkut Gold, located in North Sumatra, Indonesia. This coincides with the geologically prolific Trans Sumatra Fault Zone (TSFZ) and the associated Neogene Magmatic Arc. The Sihayo deposit is situated within a sedimentary package consisting of Permian aged calcareous sediments and volcaniclastics. The Sihayo deposit gold mineralisation is categorised as Sedimentary Rock Hosted Disseminated Gold Deposit type. It has a mineral resource worth 1.6Moz of gold, within which is contained a combined ore reserve of 0.8Moz. The company has completed a feasibility study and has commenced a new diamond drilling program at Sihayo in July 2019.

Karlawinda Gold Project – Australia-based Capricorn Metals (ASX:CMM) holds a 100% interest in Karlawinda Gold Project, situated near Newman town in the Pilbara region of Western Australia. The gold project lies within the Karlawinda greenstone belt which spans across the southern margin of the Sylvania Inlier and is part of a large-scale Archaean aged gold mineralized system. This belt of predominantly volcanic and sedimentary rocks is located on the southern margin of the Sylvania Dome. Typically, at Karlawinda the bedrock geology is obscured by a thin cover of sandy soil up to 2m thick. The Bibra Deposit has a strike length of over 2.5km and a down dip length of 2.5km and is open along strike and down dip. It has a mineral resource of 1.5Moz, within which is contained an ore reserve of 0.9Moz. The company is currently optimising the components of the feasibility and optimisation studies ahead of the commencement of construction.

Figure 11: Global gold mines comparable to the Borborema mine

Project	Company	Region	Mine Type	Measured Resource (Moz)	Indicated Resource (Moz)	Inferred Resource (Moz)	Total Resource (Moz)	Grade (g/t)	Total Reserve (Moz)	% owned
Back River Gold	Sabina Gold & Silver	Canada	Open-pit/Underground	1.7	3.6	1.9	**7.2**	6.2	2.5	100%
Volta Grande Gold	Belo Sun Mining	Brazil	Open-pit	1.5	3.4	1.2	**6.1**	1.0	3.8	100%
Sanbrado Gold	West African Resources	Burkina Faso, West Africa	Open-pit/Underground		2.4	0.7	**3.1**	2.4	1.7	90%
Wa Gold	Azumah Resources	Ghana, West Africa	Open-pit	0.7	1.1	1.0	**2.8**	1.8	1.0	53.5%
Awak Mas Gold	Nusantara Resources	Indonesia	Open-pit		1.8	0.2	**2.0**	1.3	1.1	100%
Sihayo Pungkut Gold	Sihayo Gold	Indonesia	Open-pit	0.1	1.0	0.5	**1.6**	2.1	0.8	75%
Karlawinda Gold	Capricorn Metals	Western Australia	Open-pit	0.4	1.0	0.2	**1.5**	1.0	0.9	100%
Borborema Gold	**Big River Gold**	**Brazil**	**Open-pit**	**0.3**	**1.6**	**0.6**	**2.4**	**1.2**	**1.6**	**100%**

Source: Company filings, Pitt Street Research

Undervalued vs. ASX-listed peer group of explorers and developers

Several comparable ASX-listed companies have been assembled which are principally engaged in the exploration and development of gold projects. For a comparative analysis, six relevant data points (Figure 12) are considered based on the resource base of over 1Moz Au.

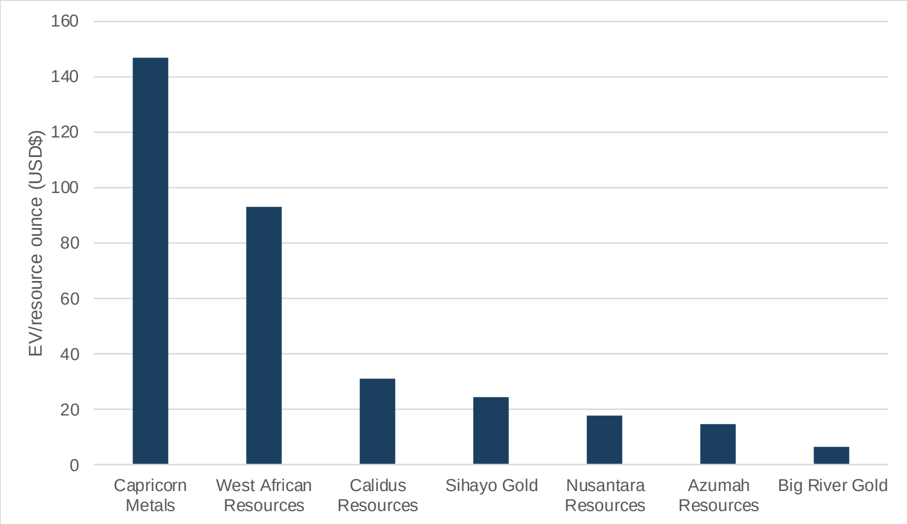
Figure 12: ASX-listed peers with gold mines at a similar development stage to BRV

Company	Market Cap (US$m)	Project	% owned	EV (US$m)	Resource (Moz)	EV/Resource (US$/oz)
West African Resources	258.27	Sanbrado Gold	90.0%	287.0	3.1	92.9
Azumah Resources	21.61	Wa Gold	53.5%	40.4	2.8	14.6
Nusantara Resources	35.19	Awak Mas Gold	100.0%	35.2	2.0	17.6
Sihayo Gold	28.79	Sihayo Pungkut Gold	75.0%	38.4	1.6	24.3
Capricorn Metals	224.07	Karlawinda Gold	100.0%	224.1	1.5	146.5
Calidus Resources	38.52	Warrawoona Gold	100.0%	38.5	1.2	30.9
Big River Gold	**15.45**	**Borborema Gold**	**100.0%**	**15.5**	**2.4**	**6.4**

Source: S&P Capital IQ, Company filings, Pitt Street Research

While valuation multiple (EV/Resource) hovers between US$5.5 and U$155.8 per Resource ounce, evidently, at around U$5.5 per ounce (Figure 13), BRV trades at a c.90% discount to its peer group average of US$53.6/oz. Importantly, we expect this discount to narrow down as Borborema gets closer to production.

Figure 13: EV/Resource (US$/oz) of ASX-listed peers



Source: S&P Capital IQ, Company filings, Pitt Street Research

Note: Market data as of 24 October 2019

Figure 14: Base valuation assumptions

Borborema Gold Project (100% owned by BRV)	Base	Optimistic
Mining	Open-pit	Open-pit
Year of mining and construction start	2020	2020
Years needed for commencement of commercial production	2	2
Total Ore reserve (Mt)	42	42
Ore extracted during the project (Mt)	20	26
Throughput rate / CIL plant capacity (Mtpa)	2	2
Open-pit average grade of gold (AU g/t)	1.22	1.22
Expected gold recoveries	93%	95%
Mine life (years)	10	15
Stripping ratio (t:t)	4.2	6
Price of Gold ($/oz)	1500	1600
Tax rate	15.25%	15.25%
Pre-production capex (US$ million)	99	110
Sustaining annual capital life-of-mine (US$ million)	1.31	1.31
Gold royalty	1.5%	1.5%
Mining operating cost, inc. 15% contractor mark-up (US$/oz)	288	288
Process operating cost for a 2Mtpa operation (US$/oz)	247	247
Other operating cost (US$/oz)	107	215
Total cash cost (US$/oz)	642	750

Source: Pitt Street Research

Valuation

Based on the latest DFS, we value Big River at 9.4 cents per share base case and 15.0 cents per share optimistic case. Our key operational assumptions are in Figure 14.

- **Gold price**. Guiding to DFS, we have been conservative in our gold price assumptions for both base and optimistic cases, with base case assuming US$1,500/oz and optimistic case assuming US$1,600/oz. Indeed, some commentators are suggesting a return to US$1,900 per ounce and more[7].
- **By products** – We have assumed no mica or other by-product credits at this stage.
- **Funding**. Guiding to DFS, we have assumed that Borborema is funded 70% debt to 30% equity.
- **Tax**. We have assumed the tax rate to be 15.25% as the Borborema project qualifies for 'SUDENE' tax concessions in Brazil.
- **Discount rate**. We have assumed a WACC of 9.6%, which balances the country risk pertaining to Brazil and the fact that project financing has yet to be obtained (cost of equity 16.1%) balanced against what we expect will be a relatively low cost of debt (8%).
- **Further equity capital**. We assume purely for valuation purposes, that Big River raises at 2.5 cents per share base case and 3.5 cents per share optimistic case. Figure 15 shows the impact on valuation depending on the equity price we raise at. Although the share price is 1.8 cents as at the date of this report, we expect the stock to undergo a slight re-rate on the back of the recent DFS release, the compelling project economics delivered in the DFS, likely secure of project financing as well as a comparatively low trading multiple.
- **Value from Meteoric Resources**. Big River sold its 5.6% stake in Meteoric Resources in September 2019 to realise $2.75m. Big River retains the opportunity to receive a further $1.5m in shares from Meteoric subject to certain milestones including JORC resource targets and decision to mine. We have not included the potential value of Meteoric in our valuation, and the cash position reflects the June 2019 reported numbers.

Figure 15: Base case valuation varied by equity raise share price

Raise $43.8m at (AUD cents)	Shares outstanding (Bn)	Valuation (AUD cents)
2.0	3508.3	8.3
2.3	3222.5	9.0
2.5	3070.1	9.4
2.8	2882.3	10.0
3.0	2777.9	10.4

Source: Pitt Street Research

[7] See, for example, Fed tolls the bell for gold US$2,000 by Tony Hayes, Kitco, 18 October 2019.

Figure 16: Our valuation of Big River Gold

Post-equity financing

BRV Valuation (AUD million)	Base	Optimistic
Net Asset Value of BGP (Post-equity DCF)	295.1	409.9
Current net debt (cash) (m)	5.5	5.5
Minority Interest (m)	-	-
Other Investments (m)	-	-
Equity value (m)	**289.6**	**404.4**
Share outstanding (Diluted)	3,070.1	2,703.8
Implied price (AUD cents)	9.4	15.0
Current price (AUD cents)	1.8	1.8
Upside (%)	424.1%	730.8%

Source: Pitt Street Research

Cross-checking our valuation – EV/Resource Oz. We took a range of ASX-listed gold developers different to those above but at comparable stages of development to BRV[8] and estimated that the median EV/Resource ounce was A$43/ounce. At this price BRV would have an EV of A$104m. That would translate to 8 cents per share.

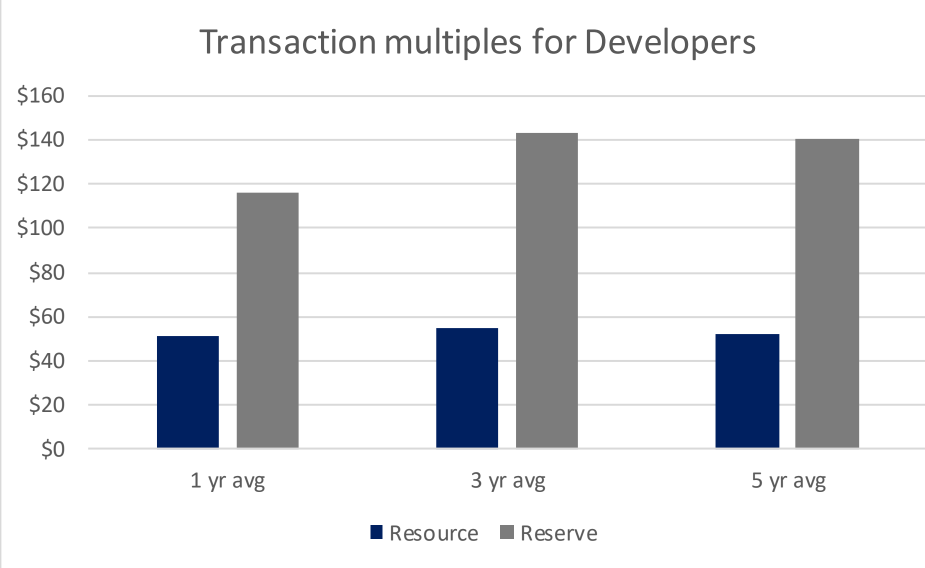
Valuation upside from resources not mined in Stage 1 – EV/Resource Oz. On the remaining resources containing ~1.65Moz gold not mined in Stage 1, we estimate that this would translate to 2 cents per share based on the median EV/Resource of A$43/oz and fully diluted shares outstanding. This provides an additional upside to our DCF-valuation derived above.

Resource and reserve transaction multiples. In Figure 17 below, we examined resource and reserve multiples applied on recent gold project transactions in the development stage comparable to BRV. Based on an assumed AUD/USD of 0.69, it is estimated that the 3-year average EV/Resource was A$55/oz. Evidently, at around EV/Resource of A$8.0/oz, BRV trades at a c.85% discount to its 3-year transaction average.

At this transaction average point, BRV would have an EV of A$132m. That would translate to 10 cents per share, approaching towards the upside end of our valuation range. Accordingly, we expect BRV's current discount to converge towards the broader transaction multiple average as Borborema gets closer to production.

[8] Bardoc Gold (ASX:BDC), Bellevue Gold (ASX:BGL), Breaker Resources (ASX:BRB), Calidus Resources (ASX:CAI), Capricorn Metals (ASX:CMM), Genesis Minerals (ASX:GMD), Horizon Gold (ASX:HRN), Horizon Minerals (ASX:HRZ), Kin Mining (ASX:KIN) andNTM Gold (ASX:NTM)

Figure 17: Resource and reserve multiples on recent gold developer transactions



Source: PCF Capital Resources Thermometer December 2019, Pitt Street Research

Experienced board and strong management

The current management and board members of BRV have rich and diverse experience, with expertise across mining, finance and geology, as well as a track record of enhancing shareholder value (Figure 18).

Figure 18: BRV's board members

Name and Designation	Profile
Andrew Richards **Executive Chairman**	• Andrew is a geologist with over 35 years of experience in the international mining industry which included company management, banking and project finance. • He held senior level positions in both production and exploration over a wide variety of areas and commodities and also undertook technical reviews, project audits and monitored project construction. • He has worked extensively with gold, base metals, rare earths and industrial minerals in Australasia, Asia, Africa and South America. • He previously served as the Managing Director and CEO of two ASX listed companies operating in China.
John Evans **Non-Executive Director**	• John is currently the principal of a Business Broking & Advisory practice and advises a range of businesses in both the SME sector and larger corporate clients. • He previously held a series of executive positions in finance and general management over a 15 year period, across a wide range of industries. • He is a qualified CA and a member of CPA Australia and the Australian Institute of Company Directors.

John Cathcart **Non Executive Director**	• John has 30 years experience in mining and mining investment analysis. • He has extensive experience in the resources sector at a technical, corporate and financial level, working in gold, copper and nickel at several major operations. • John made the successful transition to the financial sector and broking in 1994 where he established a very strong reputation with several brokers including Baillieu's, BT, HSBC and CommSec before running the Resources portfolio at Thorney Investments. • John remains an investment manager at Thorney as well as a director of the recently established stockbroking firm Rawson Lewis.
Beau Nicholls **Non Executive Director**	• Beau is a geologist and project manager with over 25 years of international experience. He has worked in over 20 countries including Australia, Eastern Europe, West Africa and South America and established a solid technical and practical base to operate in challenging environments. • He has a wide technical and corporate management experience at a senior level in gold exploration and mining for both mining groups and international consulting groups. • Beau spent 8 years working in Brazil and speaks Portuguese fluently.
Andrew Beigel **CFO/Company Secretary**	• Andrew possesses over 15 years of corporate experience across a wide range of industries and has held executive positions with other ASX-listed companies in the resources sector. • He has previously been involved in development and funding of projects and bankable feasibility studies. • He holds a Bachelor of Commerce from Murdoch University and is a member of CPA Australia.

Source: Company

Appendix I – Glossary

All-in Sustaining Costs (AISC) – AISC is an extension of existing "cash cost" metrics and incorporate costs related to sustaining production. The "all-in costs" includes additional costs which reflect the varying costs of producing gold over the life-cycle of a mine.

Bench – A Horizontal steps/increments mined as an open pit progresses deeper.

Carbon-in-leach – A recovery process in which a slurry of gold ore, carbon granules and cyanide are mixed together. The cyanide dissolves the gold content and the gold is absorbed on the carbon. It is subsequently separated from the slurry for further gold removal.

Cyanidation – A method of extracting gold or silver by dissolving it in a weak cyanide solution.

Grade – The amount of metal in each tonne of ore, expressed as troy ounces per ton or grams per tonne for precious metals and as a percentage for most other metals.

Mill – A plant where ore is ground fine and undergoes physical or chemical treatment to extract the valuable metals.

Mineral Resources (JORC Code, 2012 edition) – A concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. Mineral Resources are subdivided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

Open Pit – A mine where the minerals are mined entirely from the surface.

Orebody – A sufficiently large amount of ore that can be mined economically.

Ore Reserves (JORC Code, 2012 edition) – The economically mineable part of a Measured and/or Indicated Mineral Resource. Reserves are either Probable or Proved Reserves. While "Probable Ore Reserve" is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource, "Proved Ore Reserve" is the economically mineable part of a Measured Mineral Resource.

Oxide Ore – Mineralised rock in which some of the original minerals have been oxidised. Oxidation tends to make the ore more amenable to cyanide solutions so that minute particles of gold will be readily dissolved.

Recovery – The percentage of material of interest that is extracted during mining and/or processing. Typically, it is a measure of mining or processing efficiency.

Royalty – An amount of money paid at regular intervals by the lessee or operator of an exploration or mining property to the owner of the ground. Generally, it will be based on a certain amount per tonne or a percentage of the total production or profits.

Stockpile – Broken ore heaped on surface or prepared areas underground, pending treatment or shipment.

Strike Length – The longest horizontal dimension of an orebody or zone of mineralization.

Stripping Ratio – A strip ratio, or stripping ratio, is an important measurement related to the open-pit mining process. It represents the amount of waste material, also known as overburden, that must be moved in order to extract a given amount of ore.

Tailings – The material that remains after all economically and technically recoverable precious metals have been removed from the ore during processing.

Total Cash Costs – Total cash costs are calculated in accordance with The Gold Institute Production Cost Standard and include site costs for all mining (excluding deferred stripping costs), processing and administration, royalties and production taxes, but are exclusive of amortisation, reclamation, financing costs, capital costs and exploration costs material that remains after all economically and technically recoverable precious metals have been removed from the ore during processing.

Appendix II – Capital Structure

		% of fully diluted	Notes
Fully paid ordinary shares, ASX Code BRV (mn)	1,317	100.0%	
Options (mn)	179		179.1 mn exercisable at 2 cents expiring 30 June 2022
Options (mn)	75		75.4 mn exercisable at 5.5 cents expiring 31 May 2020
Fully diluted shares	1,317		

Source: Company

Appendix III – Major Shareholders

Investor	Number of shares	% held
Copulos Group	508.8m	38.6%
Retzos Group	82.3m	6.3%
SG Hiscock & Co.	74.1m	5.6%
Top 20 Shareholders		70.4%

Source: Company

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