



Can the Indonesian Coal Industry Survive COVID-19?

Pandemic Lockdown and Slumping Prices Put Extreme Pressure on Coal Miners

Executive Summary

While attention has been focused on the hefty downswings in the oil price caused by the collapse of demand from COVID-19 lockdowns, the coal price has been not insulated. Starting from US\$70/tonne in January, the Newcastle benchmark price (6,300 kcl) has retreated to US\$58.33/tonne. Such a rapid fall in prices may not yet be an existential moment for the global coal industry, but it is a hard blow for Indonesia, the world's largest coal exporter.

In this report, IEEFA asks four primary questions to assess the impact of the falling coal price on the Indonesian coal sector:

- How did Indonesia's listed coal producers perform last year in terms of cash profit per tonne?
- What is the cash breakeven benchmark price for these producers?
- How do rapid coal price declines and the COVID-19 operating environment make cost control difficult?
- At the current price of US\$58.33/tonne how much in royalty payments is at risk?

The report concludes that the 11 listed coal producers in the sample face a truly onerous challenge in a pandemic-induced operating environment with its lockdowns and slumping prices. A long period of such circumstances could lead to even tougher questions from stakeholders about the companies' viability and status as going concerns.

If the Newcastle benchmark averages US\$58/tonne for 2020, we estimate that there could be as much as US\$551m of royalty payments to the Indonesian government at risk in 2020 as the coal mining companies would be operating on a net negative cash per tonne basis if they have to pay the 13.5% royalty. This raises concerns about risks to government revenue.

The three companies with the lowest cash cushion under a US\$58/tonne benchmark price would be Bumi, ABM and Geo Energy.

A Closer Look at Indonesia's Coal Output

The analysis is based on a sample of 11 companies of which nine are listed in Indonesia and two in Singapore. They provide production, coal sales volumes, realized coal prices and operating cost data in their company reports. As a cross-check, we have compared their reported coal production to total Indonesian coal output compiled by the Ministry of Energy and Mineral Resources (MEMR).

Table 1: Indonesia's Overall and Coal Companies' Production, 2018-19 (million tonnes)

Company	Stock Code	2018	% Share	2019	% Share
Bumi Resources	BUMI.JK	83.29	15.77	86.30	14.15
Adaro	ADRO.JK	54.04	10.23	58.03	9.51
Indika (Kideco op mine)	INDY.JK	34.00	6.44	34.30	5.62
Bayan	BYAN.JK	28.90	5.47	31.90	5.23
Golden Energy and Resources	AUE.SI	22.60	4.28	30.80	5.05
PTBA	PTBA.JK	26.41	5.00	29.10	4.77
ITMG	ITMG.JK	22.10	4.19	23.40	3.84
ABM Investama (9M 19)	ABMM.JK	9.50	1.80	7.50	1.23
Geo Energy Resources	RE4.SI	7.10	1.34	7.40	1.21
Toba (12 M data)	TOBA.JK	5.40	1.02	4.60	0.75
Harum	HRUM.JK	4.10	0.78	3.70	0.61
Others non listed		230.56	43.67	292.97	48.03
Total Indonesia	m tonnes	528.00	100.00	610.00	100.00

Source: Ministry of Energy and Mineral Resources, Company Reports and IEEFA estimates.

Note: Production data for 2019 is for 9M19. Our sample of eleven Indonesia coal companies represents 57% of 2018 production and around 52% of 2019 coal output.

Coal Companies' 2019 Performance

2019 was a solid year for Indonesia's coal producers following an excellent 2018 thanks to steady appreciation of benchmark coal prices. The table examines the performance of these companies in terms of the following measures: Sales volumes, benchmark price, cash cost and cash cushion or margin. Notably, all companies were operating cash-positive thanks to the benchmark price of US\$77.9/tonne compared with the current spot price of US\$58/tonne.

Table 2: Indonesian Coal Companies' 2019 Sales, Price and Cash Flow per Tonne

	Sales (m tonnes)	Benchmark Price	ASP	Cash Costs	Cash Cushion
Bumi Resources	87.7	77.89	51.70	45.60	6.10
Adaro	59.2	77.89	53.55	38.61	14.94
Indika	34.9	77.89	45.10	31.20	13.90
Golden Energy and Resources	30.0	77.89	34.99	24.11	10.88
Bayan	29.2	77.89	47.60	30.86	16.74
PTBA	27.8	77.89	54.34	41.02	13.32
ITMG	25.3	77.89	64.60	47.30	17.30
ABM Investama (9M 19)	7.5	77.89	25.52	22.90	2.62
Geo Energy Resources	7.4	77.89	33.67	29.48	4.19
Toba (9M 19 for ops)	4.2	77.89	69.50	50.90	18.60
Harum	4.1	77.89	61.20	45.47	15.73

Source: Company Reports and IEEFA estimates.

As always with coal sector data, there are some key points to note about the operating metrics:

Sales: This can be different from production due to sales from inventory or coal sourced from third parties for blending.

Benchmark price: This was the average 2019 price for Newcastle coal FOB for an energy value of 6,300kcl/kg. Any coal with a lower heat content coal would be priced at a discount to the benchmark.

ASP: The average selling price for each company's coal. The lower the energy or calorific value of the coal, the greater the discount.

Cash costs: This is the cost to mine and extract the coal and to move it to the transportation point for shipment to customers. This does not include the royalty of 13.5% of the selling price to be paid to the Indonesian government.

Cash margin: This is the cash inflow per tonne of coal sold and it ranges from US \$2.62 to US\$17.30 per tonne for the 11 companies in our sample.

Breakeven Price for Each Producer

We have calculated the breakeven benchmark price for each producer, with two key assumptions on prices and on costs. For prices, we have taken the average discount to the benchmark price for the last two years and applied it to each company. To ensure that we can make a clean comparison, we have also maintained the reported 2019 full year-volumes.

For cash costs, we have assumed a 10% y-y decline from 2019. Mining costs could follow a fall in diesel prices for equipment and trucks, fewer workers and

contractors, and mining of seams with lower strip ratios. However, we note that mine plans need time to change and execute and there is likely a lag before lower oil prices translate into lower diesel prices. A 10% y-y cost decline is achievable.

Based on this scenario, for the 11 coal companies in our sample, Bumi, ABM and Geo Energy Resources would require a benchmark coal price of US\$60-62/tonne to maintain cash breakeven. At current coal prices around US\$58/tonne, and possibly lower, this would raise questions as to how higher-cost companies would find working capital to maintain operations.

Table 3: 2020 Forecast Benchmark Coal Breakeven Price

2020 Scenario	Sales (m tonnes)	Benchmark Breakeven	ASP	Cash Costs	Cash Cushion
Bumi Resources	87.7	62.94	41.04	41.04	0.00
ABM Investama (9M 19)	7.5	60.60	20.61	20.61	0.00
Geo Energy Resources	7.4	59.80	26.53	26.53	0.00
PTBA	27.8	56.31	36.92	36.92	0.00
Toba (9M 19 for ops)	4.2	53.65	45.81	45.81	0.00
Harum	4.1	52.83	40.93	40.92	0.00
Adaro	59.2	51.35	34.75	34.75	0.00
ITMG	25.3	49.92	42.57	42.57	0.00
Indika (Kideco op mine)	34.9	48.79	28.08	28.08	0.00
Golden Energy and Resource	30.0	48.39	21.70	21.70	0.00
Bayan	29.2	44.35	27.78	27.77	0.00

Source: Company Reports and IEEFA estimates.

Why This Coal Price Cycle Is Different From 2015, 2008

The coal industry faced similar price declines in 2008 and 2015. Looking at the coal price since 2006, we highlight the two periods where prices plunged but then recovered. This price uncertainty, even in a post COVID-19 global economy, is challenging because the recovery depends on the outbreak being contained and a resumption of economic activity, for which it would be difficult for mining companies to plan.

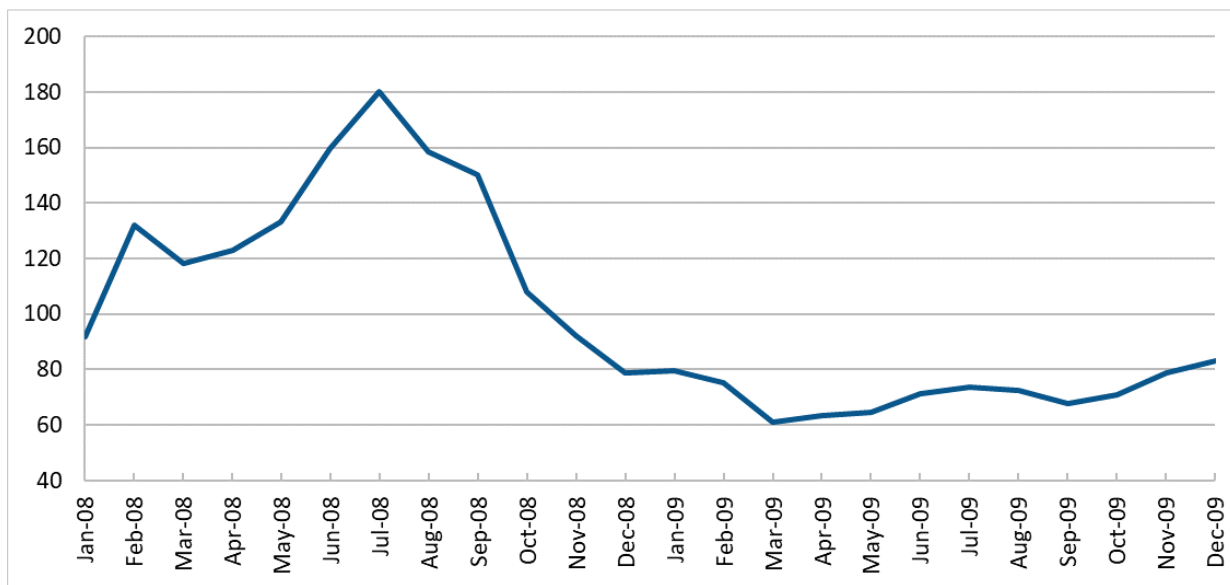
Figure 1: Newcastle Benchmark Coal Price 2006-2020 March (US\$/Tonne)



Source: Indexmundi.

Although 2008 prices declined from a high of US\$180/tonne in July 2008 to US\$60/tonne in January 2009, a recovery had started by July 2009. Also, high prices from January 2008 had helped build a six-month cushion of cash for the coal companies, meaning that cash was on hand to help them through the financial crisis as companies scrambled to reduce costs.

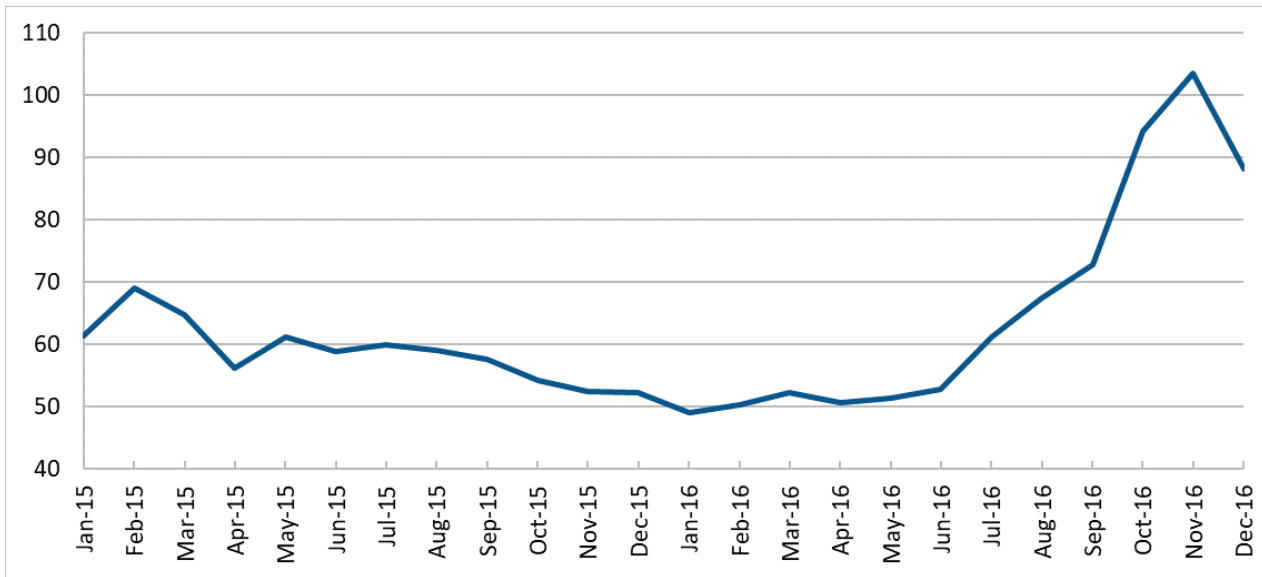
Figure 2: Newcastle Benchmark Coal Price 2008-2009 (US\$/Tonne)



Source: Indexmundi.

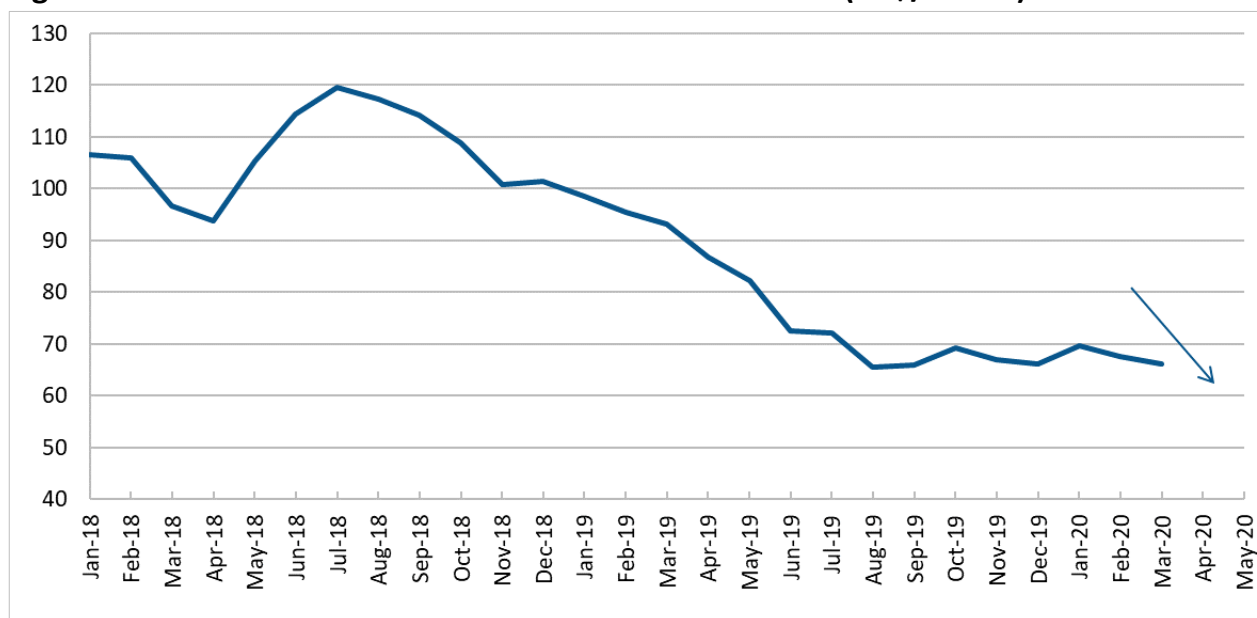
Prices remained low from May 2015 until July 2016, but started to recover strongly into the fourth quarter of 2016 as supply started to fall and demand recovered. Companies were prepared and had switched mining plans to lower-cost areas as coal prices had declined from around US\$80/tonne since January 2014. As coal prices remained in the doldrums until July 2016, the industry cost curve adjusted.

Figure 3: Newcastle Benchmark Coal Price 2015-2016 (US\$/Tonne)



Source: Indexmundi.

But the declines in 2020 were quite sudden and there has been no visibility on floor prices or a time frame for recovery. From a cost-management perspective, the sudden fall meant that managers would not have been in a position to proactively cut costs because the fall was not expected by even as late as February 2020. Switching to a mine area with a lower strip ratio requires planning and lead time. There is also the additional uncertainty of COVID-19-related disruptions to labour, transport, and the raw materials and coal supply chains. It would be challenging to manage any type of mining operation under current conditions with uncertain staffing levels and end-user demand.

Figure 4: Newcastle Benchmark Coal Price 2018-Mar 2020 (US\$/Tonne)

Source: Indexmundi.

We Estimate US\$551m of Royalties at Risk

For Indonesian coal companies, royalty payments are always a significant cost. Coal companies operating under a coal contract of work (CCoW) pay a royalty rate that is 13.5% the average price of coal received minus certain marketing and selling expenses. Our analysis suggests that at an average benchmark coal price of US\$58/tonne for 2020, there could be as much as US\$551m of royalties at risk out of a potential total of US\$1.26bn. This is because six of 11 coal companies in our sample are negative cash per tonne after paying royalties. Our three assumptions are:

- The average Newcastle coal benchmark price for 2020 is US\$58/tonne
- The royalty rate is 13.5% of the (average selling price minus 20% for marketing expenses)
- The royalty at risk is the total royalty for companies which will be negative cash per tonne of coal sold

For the first table, we ranked the 11 companies in order of negative cash flow to positive if the average Newcastle coal benchmark price averages US\$58/tonne for 2020.

Table 4: 2020 Forecast Cash Flow per Tonne at US\$58 Benchmark Coal Price

2020 Benchmark at US\$58/tonne	Sales (m tonnes)	Current ASP	Cash Costs	Cash Position	Royalty
Bumi Resources	87.7	37.82	41.04	-3.22	4.08
ABM Investama	7.5	19.73	20.61	-0.88	2.13
Geo Energy Resources	7.4	25.74	26.53	-0.80	2.78
PTBA	27.8	38.03	36.92	1.11	4.11
Toba	4.2	49.53	45.81	3.72	5.35
Harum	4.1	44.93	40.92	4.01	4.85
Adaro	59.2	39.25	34.75	4.50	4.24
ITMG	25.3	49.46	42.57	6.89	5.34
Indika (Kideco op mine)	34.9	33.39	28.08	5.31	3.61
Golden Energy and Resource	30.0	26.01	21.70	4.31	2.81
Bayan	29.2	36.32	27.77	8.55	3.92

Source: IEEFA estimates.

We note that even before royalties, three of 11 companies in our sample are already cash flow negative per tonne of coal sold. Including the royalty, the number rises to six.

Table 5: 2020 Forecast Coal Royalty at Risk at US\$58 Benchmark Coal Price

2020 Benchmark at US\$58/tonne	Sales (m tonnes)	Cash Net Royalty	Royalty	Total Royalty at Risk	Royalty
Bumi Resources	87.7	-7.31	4.08	358.2	358.2
ABM Investama	7.5	-3.01	2.13	16.0	16.0
Geo Energy Resources	7.4	-3.58	2.78	20.6	20.6
PTBA	27.8	-3.00	4.11	114.2	114.2
Toba	4.2	-1.63	5.35	22.5	22.5
Harum	4.1	-0.84	4.85	19.9	19.9
Adaro	59.2	0.26	4.24		250.8
ITMG	25.3	1.55	5.34		135.1
Indika (Kideco op mine)	34.9	1.70	3.61		125.8
Golden Energy and Resources	30.0	1.50	2.81		84.3
Bayan	29.2	4.63	3.92		114.6
Total	317.3			551.3	1,261.9

Source: IEEFA estimates.

Our analysis suggests that at an average benchmark coal price of US\$58/tonne for 2020 that companies will face serious problems meeting royalty obligations. This begs the question of whether the affected companies will seek a royalty moratorium. And if one were to be implemented, it's important to ask whether it will be applied to all companies or only to companies that face a negative cash flow per tonne of coal sold? If the royalty moratorium is expanded to the whole sector, then US\$1.26bn of royalties could be at risk.

Conclusion

The Indonesian coal sector faces the possibility of a prolonged period of lower coal prices. In addition, coronavirus-related disruptions present a challenge to planning and executing cost reduction measures. Our analysis suggests that coal at the current price of US\$58/tonne could present cash operating challenges to some Indonesian coal producers. At the average coal benchmark price of US\$58/tonne, six of the 11 coal companies will be negative cash per tonne of coal sold and this could put US\$551m out of a total US\$1.26bn in royalties at risk. If the royalty moratorium is expanded to the whole sector, then the entire US\$1.26bn in royalties could be at risk.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

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