

Spotlight: Indonesian Coal Miners

Stress Testing Cash Flow Resilience to Coal Price Declines

GEO and ABM Most Vulnerable: Fitch Ratings expects Geo Energy Resources Limited (B/Negative) and PT ABM Investama Tbk (B+/Negative) to face the highest downward pressure on unit EBITDA and FFO generation among Fitch-rated Indonesian coal miners. We also believe these companies' liquidity positions will suffer from sustained coal-price falls.

PT Adaro Indonesia (BBB-/Stable) and PT Bayan Resources Tbk (BB-/Stable) are likely to be the most resilient miners to coal-price falls. Adaro has the most resilient FFO among rated Indonesian coal companies – given its competitive mining business and stable service businesses, while Bayan generates the highest EBITDA/tonne (t) (coal-mining segment only), reflecting its best cost position among Fitch rated Indonesian coal miners. This is followed by Golden Energy and Resources Limited (GEAR, B+/Positive) and PT Indika Energy Tbk (BB-/Stable).

Unit Profitability Pivotal: Miners with the highest per t profitability, supported by low energy adjusted cost positions, tend to be the most resilient to downturns. Bayan has the highest mining EBITDA/t among Fitch-rated miners, while GEO and ABM have the weakest unit profitability and limited scope for altering mine plans. We expect GEAR to have some cost-management flexibility given its mining reserve scale and planned improvements in logistics, despite weak unit profitability.

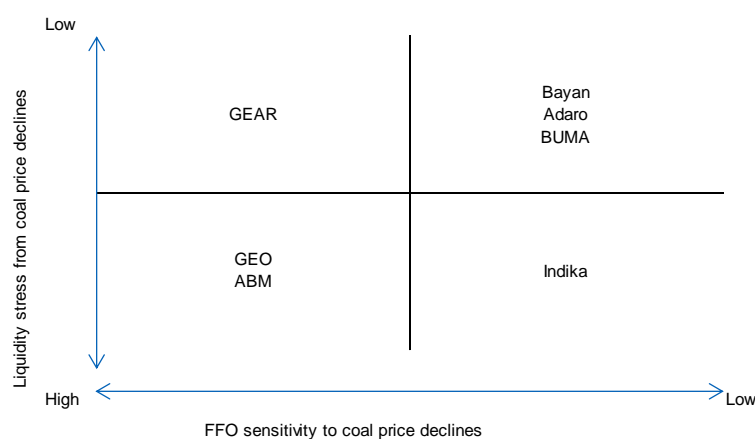
Miners have historically been able to temporarily cut mining costs by changing mining plans and renegotiating rates paid to contractors during times of stress, but we do not factor in such changes in our sensitivity analysis.

Sufficient Refinancing and Liquidity Buffers: We believe GEO and ABM will require only minimum refinancing and will be able to generate adequate cash flow to repay most of their bond maturities in 2021 and 2022, respectively, based on our price assumptions. However, both companies would require more than USD100 million in refinancing if coal prices fell by 10%-15% relative to our rating-case assumptions.

GEAR has stronger liquidity due to its low debt maturities and better operating profile. Indika has the largest bond maturities among the Fitch-rated miners, but its liquidity is supported by a large cash balance, a well-spread-out debt maturity profile through to 2024 and a record of active liquidity management.

BUMA Indirectly Exposed: The earnings and cash flow of Indonesian mining contractors are indirectly affected by lower coal prices. We believe that a moderate decline in coal prices could lower PT Bukit Makmur Mandiri Utama's (BUMA, BB-/Stable) mining service rates and increase its trade receivables. However, the impact on overburden removal volume is likely to be limited, as contractors and miners are mutually dependant. That said, a severe and sustained fall in coal prices could lead dent overburden removal volume due to customers' changing mining plans and some higher-cost mining customers becoming financially unviable.

Sensitivity Ranking Table



Source: Fitch Ratings

Effect of Falling Coal Prices on Profitability and FFO

Fitch forecasts long-term coal prices to decline from 2018 levels – see [Fitch Ratings Updates Mid-Cycle Metals and Mining Price Assumptions](#) – based on our expectations of weak Chinese import demand – see [Fitch Ratings: China's Thermal Coal Imports Fall, Miners to Find New Markets](#) – and higher Indonesian production over the next few years.

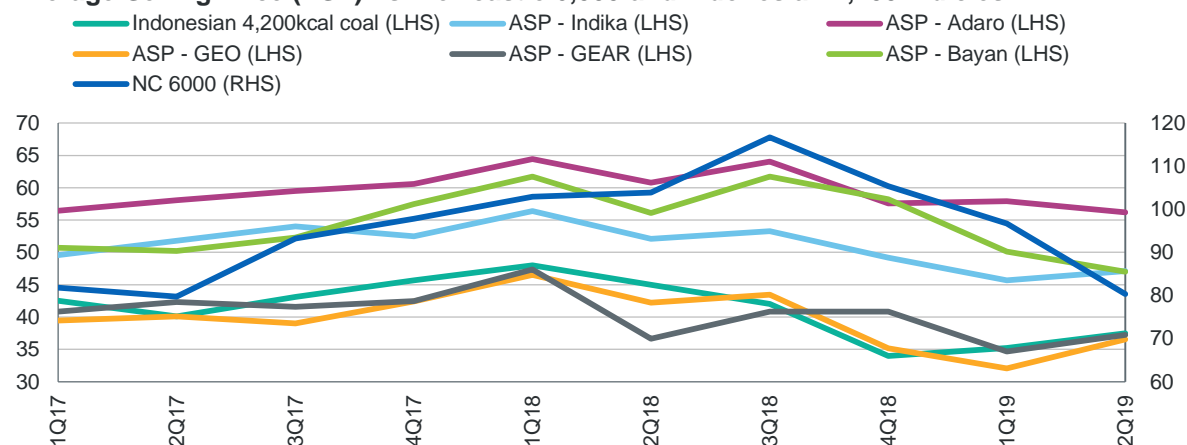
Fitch: Mid-Cycle Thermal Coal Price Assumptions (USD/t)

	2019	2020	2021	2022	Long Term
Thermal coal (Australia Newcastle 6,000 kcal/kg, FOB)	77	73	72	70	70
Thermal coal (Qinhuangdao 5,500kcal/kg, FOB)	86	80	79	76	76

Source: Fitch Ratings

Our rating-case selling-price assumptions for each rated Indonesian coal miner are determined by a number of factors, including ongoing industry developments that affect Indonesian selling prices and the resulting impact on the relationship with the Newcastle index.

Average Selling Price (ASP) vs. Newcastle 6,000 and Indonesian 4,200 Indicies

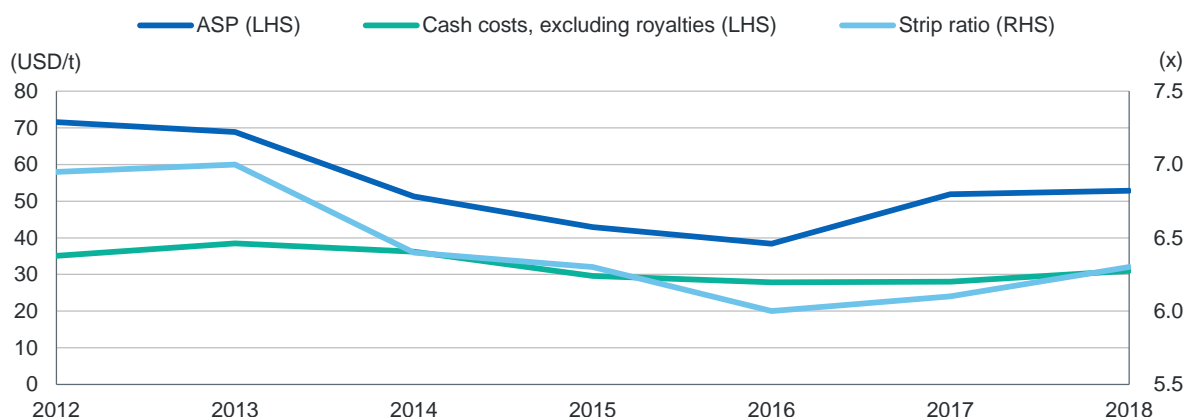


Source: Fitch Ratings

We analysed the sensitivity of the Fitch-rated issuers' EBITDA/t (coal mining segment only) and overall FFO generation using stress scenarios that assume a 5%-35% fall in ASPs to our rating-case price assumptions. These assumptions are applied equally across all companies, even though actual benchmark coal-price falls do not affect realised ASPs of all miners equally due to differences in calorific value and demand dynamics. However, we believe the sensitivity analysis is still valuable, based on historical ASP fluctuations for the rated companies.

We also assume all cash costs, except for royalties, remain stagnant for simplicity, although miners with large reserves relative to production are usually able to cut costs during extreme price stress, as occurred with PT Kideco Jaya Agung – Indonesia's third-largest producer – in 2014.

Kideco's ASP, Cash Costs and Strip Ratio



Source: Fitch Ratings

The mining costs of certain miners, such as GEAR, incorporate a degree of variability in contract mining rates for overburden removal and other logistics services. However, we do not expect this to significantly alter miners' cost positions, especially for high-cost miners, during downturns. We also believe miners can renegotiate rates with service providers during extreme price stress, as witnessed in the previous downturn, but do not incorporate this into our analysis unless already contracted. For instance, GEO renegotiated the rates it pays to some of its service providers, resulting in some slightly lower cash costs for 1H19 compared with 2018.

Fitch expects Adaro and Bayan to be the most resilient miners to any coal-price falls, as Bayan generates the highest EBITDA/t (coal-mining segment only) and Adaro has the most resilient FFO among rated Indonesian coal companies.

Bayan's cost structure is low due to lower strip ratios. This is partially offset by marginally higher transport costs. Some of Bayan's sales contracts have fixed prices, but we have not incorporated this in our sensitivity analysis due to their short-term nature of less than one year.

Adaro's mining costs are higher than those of Bayan; however, its superior FFO resilience arises from the earnings it generates via its mining services. Adaro is the most integrated of the large domestic coal miners, with a considerable amount of its mining carried out by other Adaro group entities. This has left Adaro's earnings less volatile over past commodity cycles compared with most other 'BBB-' rated mining companies.

We consider Indika to be next in the rank order of Fitch-rated Indonesian miners based on its EBITDA/t (coal mining segment) and FFO generation in our rating case. Most of Indika's earnings are derived from its 91% owned subsidiary – Kideco – whose high coal quality supports a higher ASP and competitive cost position. The resilience of Indika's FFO generation against its mining profitability reflects the cash flow contribution from its non-mining divisions; however, we assume the profitability of these divisions will also fall significantly if its coal ASP falls by about 20% due to the lower profitability of the divisions' customers, who are predominantly other Indonesian coal miners.

We expect GEAR's EBITDA/t to be more resilient to lower cost prices than that of ABM, as most of ABM's remaining coal reserves contain low grade thermal coal (3,400kcal), which has weaker profitability and relatively untested demand and pricing dynamics. Nevertheless, GEAR's FFO is more sensitive to coal-price falls than ABM, as ABM receives recurrent earnings from its contract mining division. However, we expect the profitability of ABM's contract mining to decline significantly after a weakening of Indonesian coal prices by about 10%.

GEO remains the most vulnerable to coal-price fluctuations in terms of EBITDA and FFO volatility due to its lower average coal quality and weak cost position on an energy-adjusted basis. Its reserve base is also small compared with its forecast production, limiting its flexibility to alter mining plans relative to peers with large reserves. We have not factored in GEO's proposed acquisition of a 51% stake in some of the mining assets of PT Titan Infra Energy in this report; see [Fitch Ratings: Geo's Proposed Acquisition Has No Immediate Rating Impact](#) for details on the proposed acquisition.

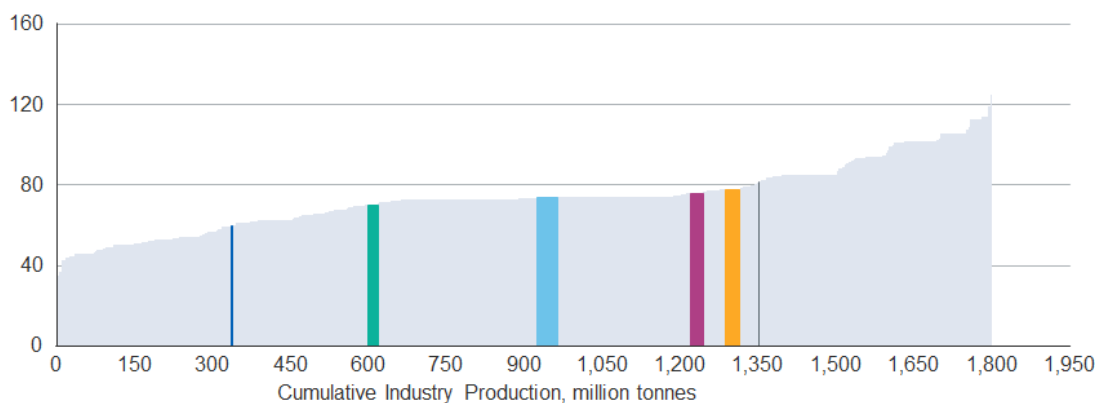


Thermal Coal Business Cost Curve

Position of Various Indonesian Mines on Thermal Coal Cost Curve



(USD/t; Business Costs FOB Thermal Coal – 2019 Seaborne, nominal)

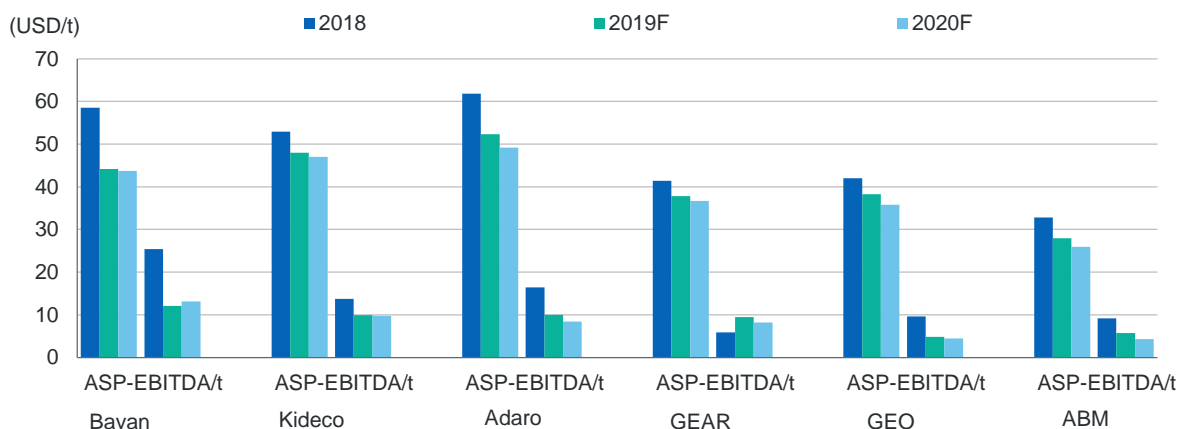


Source: CRU 2019 Thermal Coal Cost
Business costs include Site Cost (Value Adjusted) plus Inland freight (rail, road train, barging, conveyor) plus Port fees plus Marketing Costs plus Financing Costs

		Bayan	Indika	Adaro	GEAR	ABM	GEO
Probable reserve size as at end-2018	mt	764	535	1,221	1,000	264	72MT ^a
Fitch's expected production in 2019	mt	35	34	60	25	10	8
Reserve life	Years	22	16	20	40	26	9
Average calorific value of 2018 sales	(approximate)	4,500	4,600	4,700	4,400	3,800	4,200
Strip ratio in 2018	x	4.8	6.0	4.4	5.3	4.5	2.9

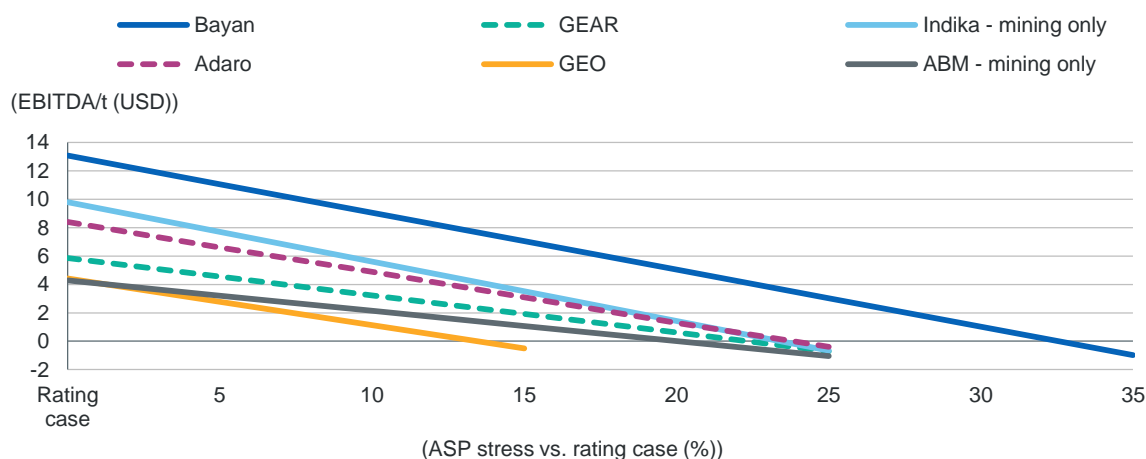
^a From operational mines
Source: Fitch Ratings

Fitch Rating-Case Assumptions



Source: Fitch Ratings, Fitch Solutions

EBITDA Breakeven 2020F

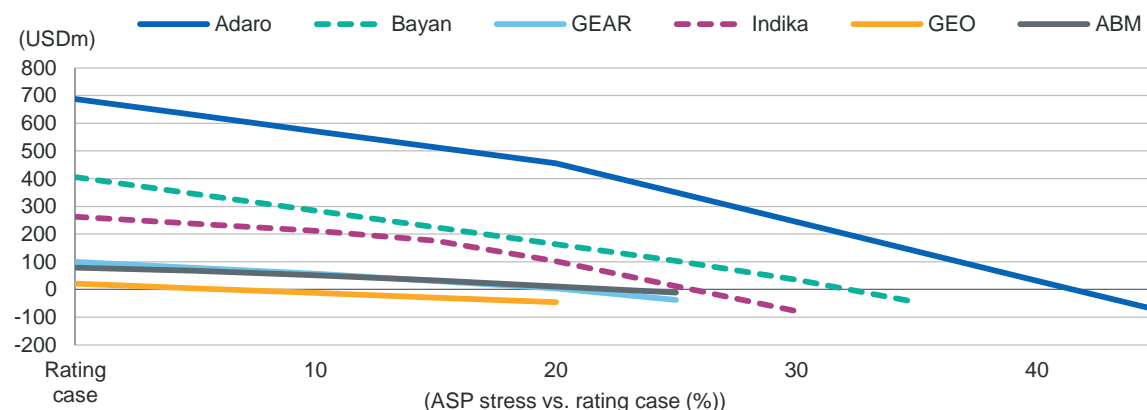


Source: Fitch Ratings, Fitch Solutions

			Rating Case	10% stress	15% stress	20% stress	25% stress	30% stress	35% stress	ASP at which EBITDA turns zero	% fall from rating-case assumption
Bayan	ASP	USD/t	44	39	37	35	33	31	28	29	33
	EBITDA	USD/t	13	9	7	5	3	1	-1	-	-
GEAR	ASP	USD/t	35	32	30	28	26			27	22
	EBITDA	USD/t	6	3	2	1	-1			-	-
Indika – mining only	ASP	USD/t	47	42	40	38	35			36	23
	EBITDA	USD/t	10	6	4	1	-1			-	-
Adaro – mining only	ASP	USD/t	49	45	42	40	38			38	24
	EBITDA	USD/t	8	5	3	1	-0			-	-
GEO	ASP	USD/t	35	32	30					30	13
	EBITDA	USD/t	4	1	-1					-	-
ABM – mining only	ASP	USD/t	26	23	22	21	19			21	20
	EBITDA	USD/t	4	2	1	0	-1			-	-

Note: 1) Selling prices and EBITDA in the chart and table above only show the mining operations of Indika, Adaro and ABM and exclude other divisions
 2) GEAR's ASP only includes sales linked to the benchmark and excludes fixed-price coal sales, which we expect to be maintained. The ASP mostly reflects the Indonesian ICI 4,200 coal-price index. EBITDA/t is GEAR's total EBITDA/total coal volume sold and includes the fixed-price coal sales
 Source: Fitch Ratings, Fitch Solutions

Fund Flow from Operation 2020F
EBITDA less tax less interest



Source: Fitch Ratings, Fitch Solutions

			Rating case	10% stress	15% stress	20% stress	25% stress	30% stress	35% stress	40% stress	45% stress	ASP at which FFO turns zero	% fall from rating-case assumption
Bayan	ASP	USD/t	44	39	37	35	33	31	28			30	32
	FFO	USDm	406	285	224	163	103	35	-46				
GEAR	ASP	USD/t	35	32	30	28	26					28	21
	FFO	USDm	99	57	30	4	-37						
Indika	ASP	USD/t	47	42	40	38	35	33				35	26
	FFO	USDm	262	211	176	102	12	-78					
Adaro	ASP	USD/t	49	45	42	40	38	35	33	31	29	38	24
	FFO	USDm	688	571	513	456	350	244	138	32	-74		
GEO	ASP	USD/t	35	32	30							33	6
	FFO	USDm	21	-13	-29								
ABM	ASP	USD/t	26	23	22	21	19					20	23
	FFO	USDm	79	51	33	11	-11						

Source: Fitch Ratings, Fitch Solutions

Sensitivity of Liquidity Profiles to Lower Coal Prices

Fitch has analysed coal miners' refinancing requirements when a substantial part of their debt come due for a range of price stresses.

Bayan

Fitch does not believe Bayan has significant refinancing risk, as the company has no long-term debt. Bayan had debt of USD129 million at end-2018, which comprised of working-capital loans, and our rating-case assumes this will be rolled over. Bayan's cash exceeded its debt balance, although the net cash position is likely to reduce considerably or marginally reverse in 2019 due to Bayan's USD300 million dividend payment. Fitch does not expect Bayan to require large additions to debt, even if coal prices fall significantly, as capex is limited relative to cash flow and is deferrable.

Adaro

Fitch regards Adaro's liquidity as robust, with a strong cash balance and high expected cash flow. Adaro expects to meet most of its refinancing requirements following its USD750 million 2024 notes issued in October 2019. As at June 2019, Adaro had debt of USD1.3 billion, with USD1.1 billion due in 2020 and 2021. We believe Adaro will maintain robust liquidity, even under further weakening in coal prices, as we expect it to refinance or repay the majority of its maturing debt, supported by its healthy cash balance and diversified cash flow generation.

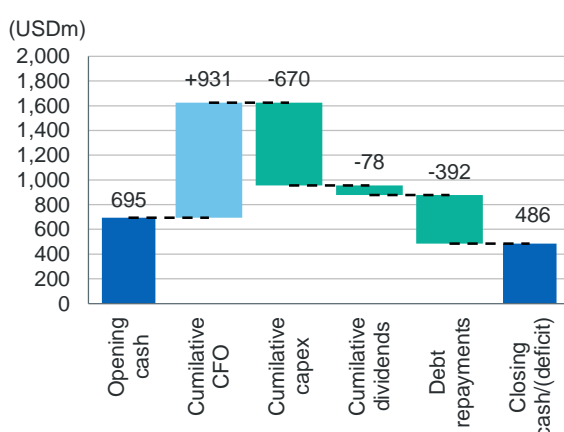
Our rating case assumes Adaro will generate positive FCF until 2023, in spite of our expectation of USD1.5 billion in capex over the next four years. Even if the ASP declines by a further 10%-15% over the next four years, we do not think the company will have major refinancing needs. If the ASP declines even further, the company should be able to access funds, given its strong access to the domestic and international capital markets.

Indika

Indika's debt maturities up to 2021 amount to less than USD70 million a year. Its first major debt maturity is in April 2022, when its USD265 million senior notes become due. Indika also has USD500 million of senior unsecured notes due in 2023 and USD575 million in 2024. However, our analysis only stress-tests liquidity up to 2022. As such, we expect Indika's cash balance to adequately meet its 2022 bond maturities, with less than USD100 million of refinancing required even if its ASPs are 30% below our expectations.

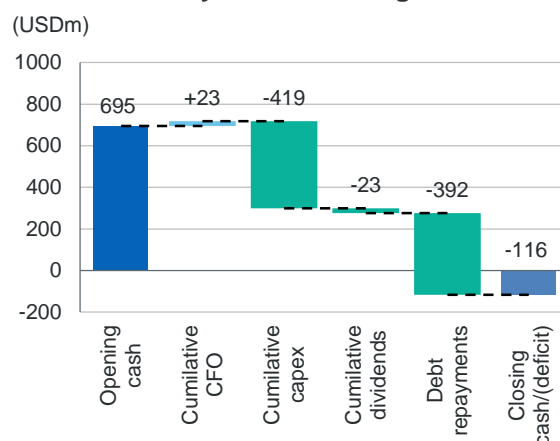
Our rating case assumes that Indika's cumulative capex will fall to USD439 million from 2019 to 2022, from USD759 million, in line with weakening coal prices. We expect most of Indika's capex to be used for expansion and equipment replacement at its contract-mining division; such capex should decline if coal markets stay weak for a long period.

Rating Case to April 2022



Source: Fitch Ratings, Fitch Solutions

ASP Stressed by 35% vs. Rating Case



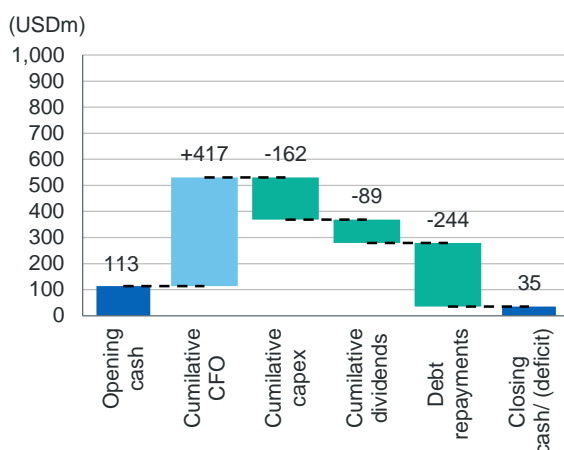
Source: Fitch Ratings, Fitch Solutions

GEAR

Fitch expects GEAR to require around USD150 million of refinancing if its ASP, excluding fixed-price contracts, is consistently 20% below Fitch’s rating-case price assumptions; of GEAR’s USD269 million debt at end-2018, USD150 million comprised of a senior note due in February 2023. The remainder of its debt maturities are granular, with USD46 million due in 2019.

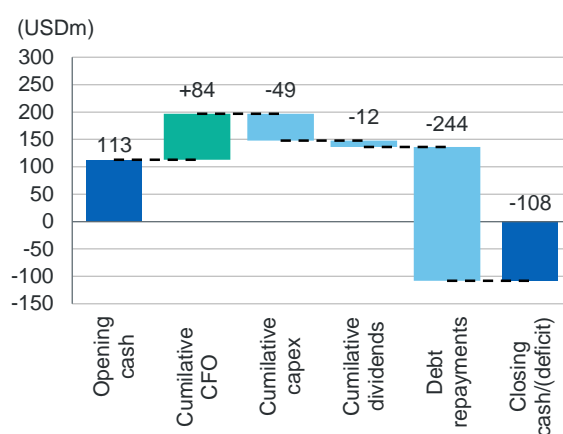
The following liquidity stress-test assumes GEAR would curtail its cumulative capex to USD58 million in 2023, from USD190 million in 2019, in line with weaker earnings, as most of its capex pertains to improving operational efficiency. We believe GEAR would be well-positioned to refinance its maturing notes given the strong operating profile of its mining subsidiary, PT Golden Energy Mines Tbk (B+/Positive), especially in terms of remaining reserves.

Rating Case to February 2023



Source: Fitch Ratings, Fitch Solutions

ASP Stressed by 20% vs. Rating Case



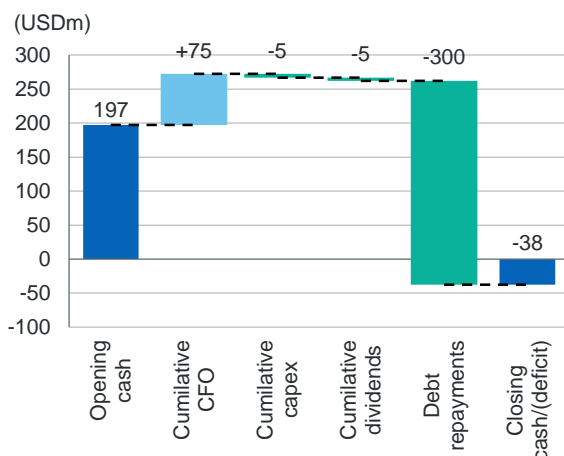
Source: Fitch Ratings, Fitch Solutions

GEO

GEO is required to repay its USD300 million bond, due 2022, in April 2021 if it is unable to acquire a coal asset to meet minimum coal-reserve conditions as per the bond documents. The company has been unsuccessfully attempting to acquire a coal asset since late 2017. Fitch has not factored in a coal-asset acquisition and treats it as an event risk.

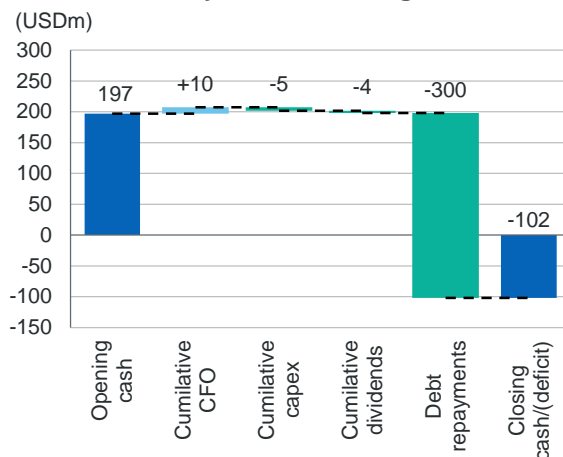
GEO would require modest refinancing if its bond came due in 2021, which we believe it manageable in light of our cash flow expectations. However GEO’s liquidity position remains the most vulnerable to a coal-price downturn due to its low price realisation, small production scale and limited flexibility to alter mining plans. A 10% stress to our rating-case assumption would considerably increase its refinancing requirements.

Rating Case to May 2021



Source: Fitch Ratings, Fitch Solutions

ASP Stressed by 10% vs. Rating Case

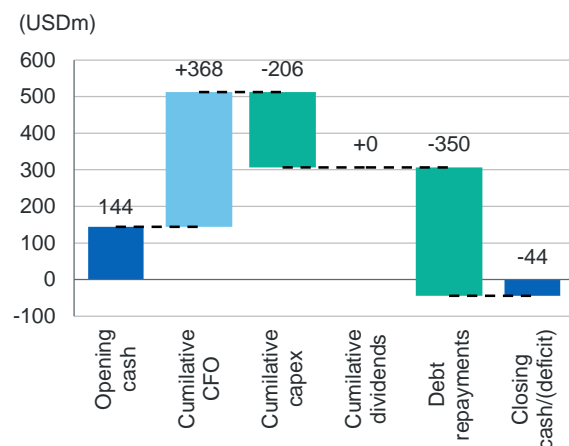


Source: Fitch Ratings, Fitch Solutions

ABM

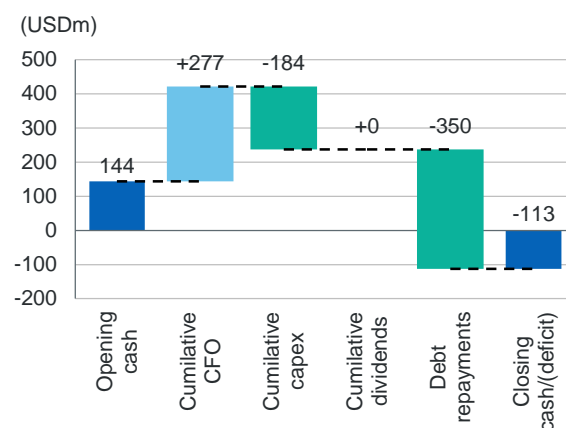
Fitch expects ABM to generate adequate cash to repay most of its USD350 million of bonds due August 2022 and believes the company will be able to refinance the USD55 million shortfall. ABM is susceptible to lower coal prices, with prices 10% below our rating case requiring refinancing of around USD100 million when its debt matures. Fitch assumes the profitability of ABM's mining-contracting division will continue to fall significantly if Indonesian coal prices decline by about 10% due to the lower profitability of the customers of these divisions.

Rating Case to August 2022



Source: Fitch Ratings, Fitch Solutions

ASP Stressed by 10% vs. Rating Case



Source: Fitch Ratings, Fitch Solutions

BUMA – Indirect Exposure

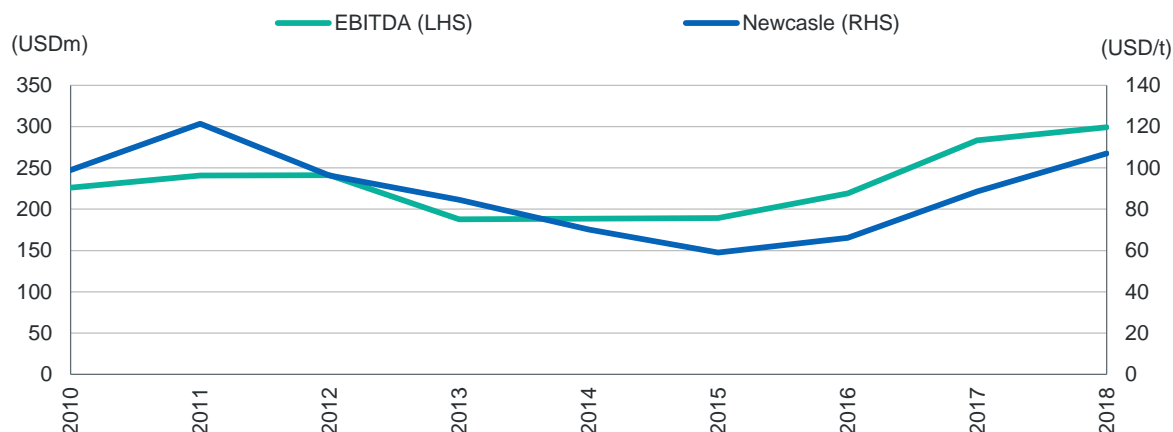
Mining contractors provide mining equipment and services, including coal hauling, and are closely involved with mining companies in their mine-development plans. We believe this leads to high mutual dependence and, consequently, high switching costs. Contractors with high exposure to large, low-cost miners are better-positioned to withstand down cycles, as their customers are likely to be more resilient.

BUMA has stable coal-mining services rates that do not vary much with fluctuating coal prices. Some of its contracts have tier-pricing mechanisms that move in tandem with coal prices; this alone is unlikely to result in significant revenue losses when coal-price declines are only moderate. However, BUMA's pricing will be more severely affected if its customers suffer significant profit pressure due to weak coal prices for a prolonged basis.

BUMA is mostly exposed to volume risk if clients cut production. However, most of its customers are large low-cost miners, limiting the risk of significant volume cuts during moderate coal-price falls. However, in the event of a severe coal-price downturn, even low-cost miners with high operational flexibility tend to alter mining plans to cut costs, usually selecting areas with low overburden levels. Severe price downturns may lead to thin profit margins for some miners or mine areas, which become financially unviable. This can result in a halt in mining and the loss of volume.

BUMA's volume risk was demonstrated when its overburden removal volume fell by more than 20% during the coal-price downturn from 2012 to 2015, while coal-mining volume fell by only 4%. Nevertheless, BUMA supported its EBITDA by cost optimisation and cutting capex to manage leverage.

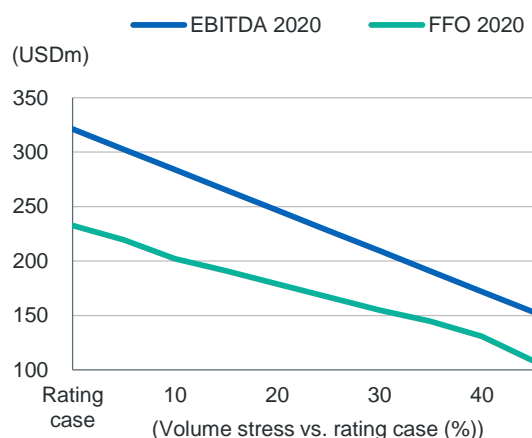
BUMA EBITDA vs. Newcastle Coal Index



Source: Fitch Ratings, Fitch Solutions

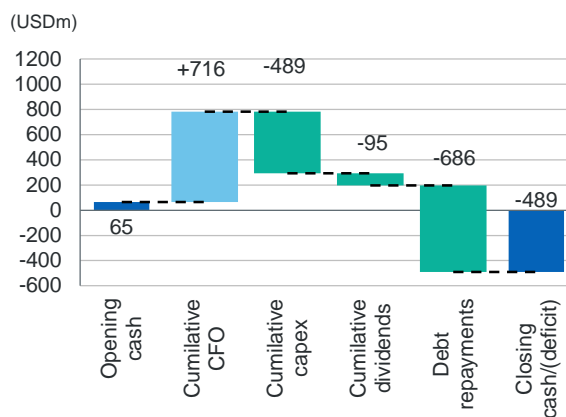
The following chart demonstrates the sensitivity of BUMA's EBITDA and FFO to lower volume and higher trade payable days, but do not factor in a change in BUMA's contract prices.

BUMA Sensitivity Analysis



Source: Fitch Ratings, Fitch Solutions

Rating Case to February 2022



Source: Fitch Ratings, Fitch Solutions

Fitch expects BUMA to require about USD425 million of refinancing when its USD350 million of bonds come due in February 2022, as other debt also matures during that time. We do not expect significant refinancing risk due to BUMA's strong operational profile and believe BUMA has adequate flexibility to curtail capex, which is for expansion and maintenance and would reduce if volume was to fall from weak coal prices.

Related Research

Fitch Ratings: China's Thermal Coal Imports Fall, Miners to Find New Markets (August 2019)

Fitch Ratings Updates Mid-Cycle Metals and Mining Price Assumptions (November 2019)

PT Adaro Indonesia (October 2019)

Fitch Affirms Bayan Resources at 'BB-'; Outlook Stable (August 2019)

PT Indika Energy Tbk (March 2019)

Fitch Affirms GEAR, GEMS at 'B+'; Outlook Positive (January 2019)

Fitch Affirms Bukit Makmur Mandiri Utama at 'BB-'; Outlook Stable (September 2019)

Fitch Downgrades ABM Investama to B+; Outlook Negative (May 2019)

PT Golden Energy Mines Tbk (April 2019)

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