



Moody's updates on Vale's credit opinion

Rio de Janeiro, October 30, 2024 – Vale S.A. ("Vale" or "Company") informs that Moody's Investor Service has updated, on this date, its credit opinion report on Vale, Samarco Mineração S.A. and BHP Group Limited, taking into consideration the Definitive Settlement for the full reparation of Samarco's Fundão dam collapse.

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ISSUER COMMENT

30 October 2024



RATINGS

Samarco Mineracao S.A.

Long-term corporate family rating	B3
Senior unsecured	B3
Outlook	Stable

Vale S.A.

Long-term issuer rating	Baa2
Senior unsecured	Baa2
Outlook	Positive

BHP Group Limited

Long-term issuer rating	A1
Senior unsecured MTN	P(A1)
Commercial Paper	P-1
Outlook	Stable

Source: Moody's Ratings

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Samarco Mineracao S.A., Vale S.A., BHP Group Limited

Settlement for Fundão dam collapse reduces uncertainty, but increases cash disbursements from prior agreements

On 25 October, [Samarco Mineração S.A.](#) (B3 stable), [Vale S.A.](#) (Baa2 positive) and BHP Billiton Brasil LTDA, an indirect subsidiary of [BHP Group Limited](#) (A1 stable), entered a final agreement with the Federal Government of [Brazil](#) (Ba1 positive), State of Minas Gerais, State of Espírito Santo, public prosecutors and public defenders (public authorities) to settle the Framework Agreement obligations, the Federal Public Prosecution Office civil claim and other claims by public authorities related to Samarco's Fundão dam collapse in November 2015. The agreement is subject to approval by Brazil's Supreme Court, which is likely by year-end 2024.

The BRL170 billion (\$31.7 billion) final agreement includes past and future obligations: BRL38 billion (\$7.9 billion) has already been disbursed for remediation and compensation measures; BRL100 billion (\$18 billion) is to be paid in 20 installments over 20 years to the federal government, the states of Minas Gerais and Espírito Santo and the municipalities to fund compensatory programs and actions tied to public policies; and BRL32 billion (\$5.8 billion) in performance obligations by Samarco to the Federal Union to be spent on initiatives for individual indemnification, resettlement and environmental recovery.

The settlement agreement is credit positive because it defines Samarco's legal liabilities, clarifies cash flow visibility and reduces the risk of future disbursements. Samarco remains the primary obligor, while Vale and BHP will share equally the obligations that Samarco cannot fund, following the same approach as for obligations already disbursed.

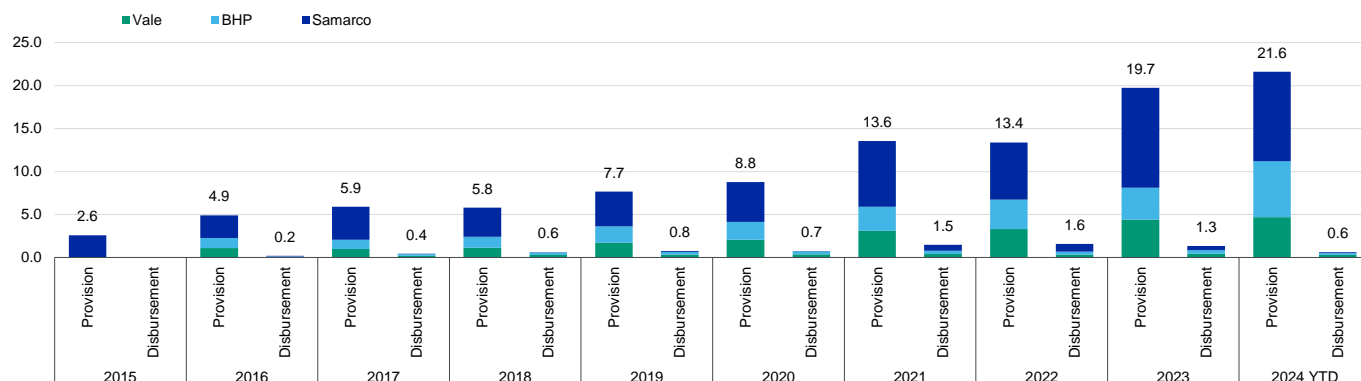
The agreement will not resolve other litigation, which include the following: the Australian class action complaint; the UK group action complaint; the group action claim brought against certain Vale and Samarco entities in the Netherlands; criminal charges against Samarco, BHP Brasil, Vale and certain individuals; civil public actions by private associations; and future or unknown claims that may arise from new information or damages in connection with the dam failure. However, the agreement materially reduces uncertainty given its comprehensive nature compared to the original agreements.

The cash disbursements' effects on liquidity are mitigated by the 20-year payment schedule, which are now defined. Vale added BRL5.3 billion (\$956 million) to provisions in 3Q 2024 financials, bringing the total to \$4.7 billion. In second half of 2023, BHP increased its provisions related to Samarco by \$3.2 billion (post tax) (around \$3.1 billion pre-tax), bringing the total to \$6.5 billion. The increase reflects the expected outflows under the agreement, and BHP deems no further updates to the provisions necessary.

To date, Vale and BHP's provisions are equivalent to the present value of each owner's total estimated responsibility under the framework agreement. (See Exhibits 1 and 2). Both companies maintain strong liquidity levels. Vale reported \$4.6 billion of cash at 30 September 2024 (and \$5 billion in committed credit facilities fully available), while BHP had \$12.5 billion in cash and \$5.5 billion in undrawn revolving credit facilities at the end of June 2024.

Exhibit 1

Evolution of provisions and cash outflows for Vale, BHP and Samarco related to the tailings dam collapse
\$ billion*



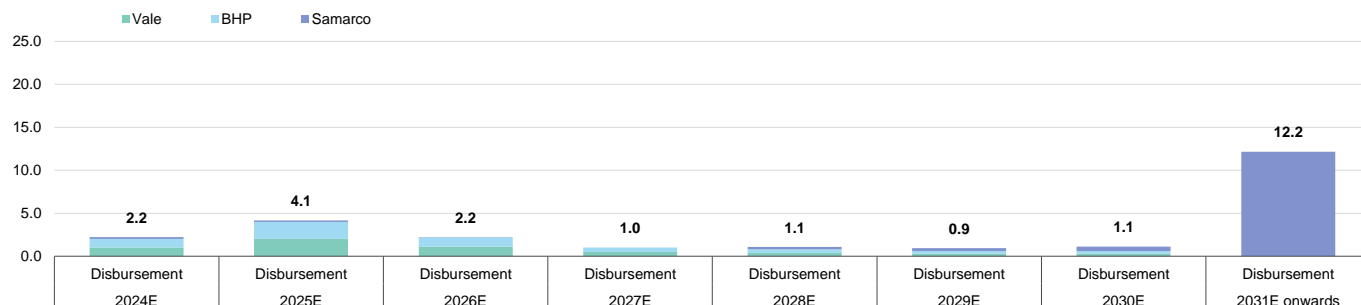
Vale's provisions and cash outflows as of September 2024 and BHP and Samarco as of June 2024.

*Calculations considering amounts in BRL converted to USD based on end of period FX from Banco Central do Brasil (BCB).

Sources: Company's fillings, Banco Central do Brasil and Moody's Ratings

Exhibit 2

Expected cash outflows for Vale, BHP and Samarco with the final agreement*
\$ billion



*Considers expected cash outflows based on companies' announcements at settlement. Calculations considering amounts in BRL converted to USD based on a FX rate of 5.54 BRL/USD.

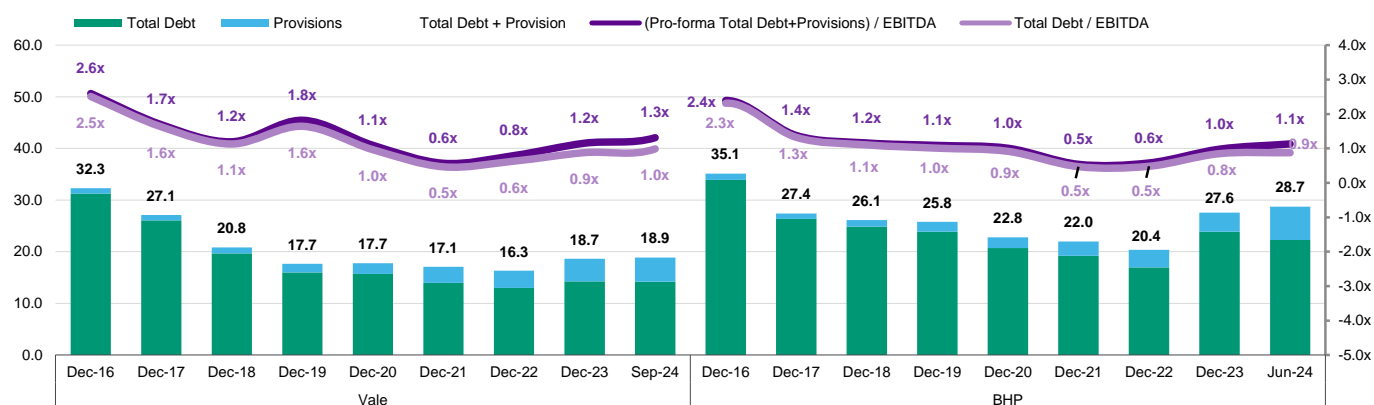
Source: Company's fillings and Moody's Ratings

If we were to consider the current provisions related to Samarco as debt to Vale and BHP, the effect on leverage would not be significant and would remain within the rating guidance levels for both companies (Exhibit 3). For BHP, pro forma for the \$6.5 billion provision considered as debt, which the company believes reflects the agreement's expected cash outflow, BHP's leverage would increase to 1.1x from 0.9x for the fiscal year ended June 2024. For Vale, pro forma for the additional \$956 million of provisions, leverage for the 12 months to 30 September 2024 would increase to 1.3x from 1.0x.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody.com> for the most updated credit rating action information and rating history.

Exhibit 3

Considering the provisions related to Samarco as part of Vale and BHP's debt, the increase in leverage would not be significant



Numbers are on a Moody's adjusted basis. BHP's fiscal year ends on 30 June.

Sources: Company's filings and Moody's Ratings

In March 2016, Samarco, Vale and BHP signed a 15-year agreement with the federal authorities and created the Renova Foundation to fund environmental, social and economic remediation and reparation programs as set by the framework agreement. In June 2018, a new agreement was made to improve the Renova Foundation's governance mechanism and establish a process to revise the remediation programs under the framework agreement. The final settlement invalidates the existing agreements and the Renova Foundation will cease to exist, with all obligations to be carried out by Samarco.

Since 2016, Samarco and its shareholders have contributed about BRL36 billion (around \$7.5 billion) under the framework agreement, of which, shareholder contributions funded BRL24 billion (\$5.1 billion) while Samarco funded BRL11.9 billion (\$2.4 billion), as shown in Exhibit 4.

Exhibit 4

Funding for Renova Foundation

As of June 2024

In USD millions	2016	2017	2018	2019	2020	2021	2022	2023	2024 YTD	Total
Shareholders funding	147	395	567	630	725	775	669	855	382	5,145
Samarco funding	69	2	-	127	2	701	862	469	119	2,351
Total funding (USD millions)	216	397	567	757	727	1,476	1,531	1,324	501	7,496
Total funding (BRL millions)	640	1,293	2,111	2,998	3,810	8,000	8,098	6,600	2,547	36,096
% by Shareholders	68.1%	99.5%	100.0%	83.2%	99.7%	52.5%	43.7%	64.6%	76.2%	68.6%
% by Samarco	31.9%	0.5%	0.0%	16.8%	0.3%	47.5%	56.3%	35.4%	23.8%	31.4%

Sources: Company's filings and Moody's Ratings

Under Samarco's judicial reorganization, which Brazilian and US courts confirmed in the second half of 2023, its contributions related to the tailings dam collapse are capped at \$1 billion from 2024 through 2030 (\$200 million from 2024-26 and \$100 million from 2027-30). If contributions surpass the annual cap or Samarco's cash flow generation, Vale and BHP are responsible for the amounts. At the same time, Samarco's contributions related to the tailings dam collapse will depend on the company's ability to generate "excess" cash flow beyond its operational and capital spending obligations. To the extent that Samarco is unable to meet its funding obligations, Vale and BHP have secondary funding obligations in proportion to their stakes in Samarco, in the form of equity contribution to Samarco. These provisions enhance the predictability of Samarco's disbursements, reducing the risk that extraordinary obligations might jeopardize Samarco's ability to service debt.

Headquartered in Minas Gerais, Samarco Mineração S.A. is a 50%-50% joint venture between mining companies Vale and BHP Billiton Brazil Ltda., which is owned by BHP. The company is a major exporter of seaborne iron ore pellets worldwide with operations in Espírito Santo and Minas Gerais, in the Southeast region of Brazil.

Headquartered in Rio de Janeiro, Vale S.A. is one of the world's largest mining companies. As of June 2024, ferrous minerals (primarily iron ore and pellets) accounted for around 84% of the company's net revenue, while the remaining 16% was mainly related to energy transition metals (primarily nickel and copper). In the 12 months that ended June 2024, Vale reported net operating revenue of \$42.1 billion.

BHP, headquartered in Melbourne, Australia, is one of the world's largest diversified global mining groups. The group's operations involve commodities such as iron ore, copper, metallurgical coal, nickel and energy coal. The group benefits from leading positions in the commodities it produces. Iron ore production is the most substantial contributor to group earnings with BHP ranking among the top three in the seaborne market. For fiscal 2024 (ended in June), BHP generated total revenue of \$55.7 billion.

KEY METRICS:

Exhibit 5

	Samarco Mineracao S.A. (1H 2024 ¹)	Vale S.A. (LTM Sep-24)	BHP Group Limited (FY 2024)
Revenues (USD billion)	\$0.8	\$41.0	\$55.7
EBIT Margin (%)	114.1%	27.7%	36.2%
EBIT / Interest Expense	1.1x	10.2x	12.1x
Debt / EBITDA	4.7x	1.0x	0.9x
Debt / Total Capital	-33.0%	26.3%	29.9%
(CFO - Dividends) / Debt	4.4%	37.4%	49.6%

All figures are calculated using Moody's standard adjustments.

1. Samarco's metrics excludes Renova obligations.

Source: Moody's Financial Metrics

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