## Company

Vale S.A., Diversified Mining

<table>
<tr><td colspan="2">Accounting</td><td colspan="2">Climate Assumptions</td><td colspan="2">Audit</td><td>Date of analysis: 23rd March 2021</td></tr>
<tr><td>Judgements</td><td>Consistency with other reporting</td><td>Visibility</td><td>Paris alignment</td><td>Visibility in CAMs</td><td>Consistency check</td><td>Year end: 31st December 2020<br>Report date: 23rd March 2021<br>AGM: 30th April 2021</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td rowspan="2">CA 100+ company, so seen by investors as key to driving global net zero emissions</td></tr>
<tr><td>Significant concerns</td><td>Significant concerns</td><td>Significant concerns</td><td>Significant concerns</td><td>Significant concerns</td><td>Significant concerns</td></tr>
<tr><td colspan="7">Summary view:<br><ul><li>The narrative reporting suggests a high degree of focus by the board and management on issues related to climate change, with extensive discussion and specific targets. (Although the discussion is focused on the measures that Vale is taking rather than the risks to their business from different scenarios.)</li><li>In contrast, the Audited Financial Statement are essentially silent on climate change considerations.</li></ul></td></tr>
</table>

## Background

<u>The Business</u>

- Vale S.A. is one of the world's largest iron ore producers. In addition, the company has significant interests in copper and nickel mining ("base metals") as well as smaller interests in a number of other hard commodities including coal.
- Both the mining and shipment of iron ore (exported from Brazil around the world with China being the single largest destination) and other minerals are high carbon impact activities, although the largest emissions are scope 3 through the processing of iron ore to make steel.
- The exposure to coal is small in proportionate terms, contributing less than 1.5% of revenues, and the company has committed to divest its remaining coal assets with environmental concerns being cited as a motivation.

<u>Approach to climate change</u>

- The narrative materials (in both the 20-F and various sustainability-related disclosures) have extensive discussion of climate change strategy, with specific goals. However, in contrast, the Audited Financial Statements make no reference to any strategy, targets or other disclosures relevant to, or impacted by, climate issues.
- As a major user of fossil fuels in both the mining and shipment of iron ore and other minerals, Vale would be directly impacted by any changes in the pricing or availability of these fuels.
- Most iron ore is used to produce steel, which is a carbon intensive process, which could be impacted by any changes in the pricing or availability of fuels for this process. In 2019, scope 3 emissions (primarily from the processing and use of products sold by Vale) contributed 562.7m tons of $CO_2$ out of total emissions of 575.3m.
- Demand for nickel and copper for EVs and other green technologies may provide upside risk for the long-term prices of these commodities.
- In 2020 Vale committed to a number of targets, including: minimum 33% reduction in scope 1 and 2 emissions by 2030; carbon neutral (scopes 1 and 2) by 2050; reduce scope 3 emissions by 15% by 2035.

## Accounting: judgements and consistency with other reporting

| | | |
|---|---|---|
| Accounting judgements | | Significant concerns |

- With both a local listing in Brazil and ADRs in New York, Vale reports under both Brazilian GAAP and IFRS. This Company Analysis is based on the 20-F and the IFRS disclosures.

- There is no reference in the notes to accounting judgements having been impacted by climate-related issues.

| Consistency with other reporting | | Significant concerns |
|---|---|---|

- Vale publishes an Annual Report 20-F, separate Audited Consolidated Financial Statements, a Report from Administration (management report) and a Sustainability Report (prepared in accordance with the GRI Standards). It also plans to publish an Integrated Report in April 2021 following the model of the International Integrated Reporting Council (IIRC).
- In line with the recommendations of the TCFD, Vale conducted a climate change scenario analysis for business resilience.
- In summary, there is a complete disconnect between the extensive consideration of climate issues outlined in the narrative reporting and the complete lack of reference to these issues in the Financial Statements.

**Climate assumptions in accounts: visibility and Paris alignment**

| Visibility of climate assumptions in accounts | | Significant concerns |
|---|---|---|

- There are no apparent climate-related assumptions. There is thus no sensitivity analysis.

| Paris alignment | | Significant concerns |
|---|---|---|

- With no visibility, there can be no alignment with the goals of the Paris Agreement.

**Audit: visibility in CAMs and consistency check**

| | |
|---|---|
| Audit firm: PricewaterhouseCoopers | Responsible partner: Patricio Marques Roche[1] |
| Audit standards: PCAOB standards | |

| Visibility in Critical Audit Matters | | Significant concerns |
|---|---|---|

- There is no reference to climate change in the auditor's report.
- There are 3 CAMs identified: (i) Brumadinho dam failure; (ii) Assessment of goodwill and other long lived non-financial assets for impairment; (iii) Tax litigation.
- Of these 3 CAMs, only the assessment for impairment might be expected to include climate-related elements, but there is no mention of these elements being a factor in making this a critical audit matter. (There was a large impairment charge during 2020 concerning the base metals asset in New Caledonia, but this stems from the challenging economics of this operation and the eventual decision to exit it.)
- In this Assessment for impairment, there is reference in the auditor's report to the use of professionals with specialised skills and knowledge, but there is no mention of individuals with expertise in climate change or carbon emissions.

| Consistency check | | Significant concerns |
|---|---|---|

- The audit report does not describe the scope of the auditor's work beyond the audit of the Consolidated Financial Statements and does not indicate that the auditor assures other information from the company, such as the narrative reporting in the 20-F or the separate management report (Report from Administration).
- The Sustainability Report refers to "all GHG emissions inventoried by Vale are subject to external third-party verification" but it does not state who is this third party.

[1] Audit partner for 2020 20-F Annual Report is not stated, but Patricio Marques Roche was the PwC Engagement Partner for Vale in 2020.

| | | |
|---|---|---|
| The Climate Accounting Project is an independent investor-led project to reinforce the statements of the IASB and IAASB that material climate change issues are incorporated within their standards. This analysis seeks to understand the extent to which companies and auditors are delivering against this aspect of these standards and similar local standards. | | **Key** |
| | | Good practice |
| | | Few concerns |
| | | Some concerns |
| | | Significant concerns |



***Terms, conditions and disclaimer***

*The information contained in this document is for general information and educational purposes only.*

*Nothing in this document constitutes investment, legal, accounting, tax or other professional advice, or any recommendation to buy, sell or hold any security or other financial instrument, nor to exercise voting rights in any particular way. The information contained in this document is not intended to form the basis of any investment or voting decision, it does not constitute any form of investment recommendation or investment research and has not been prepared in accordance with any legal requirements designed to promote independence or objectivity. The authors of this report are not regulated by the Financial Conduct Authority or any other financial regulatory authority. You should make your own independent assessment and seek your own professional advice.*

*No representation or warranty is made that any of the information contained in this document is accurate or complete and no responsibility or duty of care of any kind is assumed by any person for errors or omissions in the contents or for the fairness of the opinions given. The authors do not accept any liability whatsoever for any direct or consequential loss howsoever arising, directly or indirectly, in connection with the use for any purpose of the information contained in this document.*

*You expressly agree that you use the information in this document at your own risk.*

*All information in this document is believed to be current as of the date of publication. Information may have been updated subsequently. The authors may make additions, deletions, or modifications to the contents at any time without prior notice.*

*This document reflects the authors' own interpretation and opinion of accounting and auditing standards and how companies and their auditors have applied those standards. No representation or warranty is made that any interpretation or opinion of International Financial Reporting Standards, International Standards for Auditing, other financial reporting and regulatory requirements or the application of these standards or requirements by individual companies or their auditors is correct, complete or fair, nor that they are incorrect, incomplete or unfair, or that the same views would or would not be arrived at by others. You should seek your own professional advice if making decisions that depend on the interpretation of any standards related to financial reporting or auditing, or other regulatory requirements.*

*The views expressed in this document reflect the personal opinions of the authors and not those of any other companies, organisations, committees or persons with which they may be associated.*

*Stripes image credit: Prof. Ed Hawkins   www.showyourstripes.info*